

Consumers' Research BULLETIN

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CONSUMERS' RESEARCH BULLETIN

WASHINGTON, NEW JERSEY

THE MAGAZINE THAT GUIDES CONSUMER BUYING

OCTOBER 1956 • VOL. 38 • NO. 4

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Off the editor's chest

AFTER the steel and aluminum strikes were settled, headlines began to appear last August in the financial pages of the daily newspapers and the trade press: "Makers of a Wide Range of Steel-Using Products Start Increasing Their Prices," "7% Price Hike on Aluminum Furniture Seen," "Impact of Steel Price Boost Spreads," "Tags on Wide Variety of Products Are Going Up," "Appliance Hikes Ready." With the prices of steel and aluminum geared to labor costs, the prospects are that consumers will be obliged to pay more for most major items in which these two important metals are used.

New laundry appliances of a number of firms already are higher in price than the corresponding 1956 models. Refrigerators of at least one make are up 5 percent. Kitchen ranges have also increased in price. By January 1, 1957, according to one trade journal, appliance dealers will be asking higher prices for all their wares. In explanation, manufacturers point out that labor and material costs have been creeping upward during the past three years, and they can no longer afford to absorb increases in production costs that are rising faster than improved production techniques can be developed to compensate for them.

Whether these price rises will seriously discourage consumers from purchasing new household equipment is a matter on which dealers and manufacturers disagree. Some dealers believe they can pass on the increases to consumers. Others are convinced they will be obliged to absorb the increases in the face of strong pressure from consumers for lower prices and stiff competition in the appliance field. The memory of this past season in the

(Continued on page 24)

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Listings usually are arranged in alphabetical order by brand name (not in order of merit) under each quality or performance rating. A numeral 1, 2, or 3, at the end of a listing indicates relative price, 1 being low; 3, high. Where the 1, 2, 3 price ratings are given, brands in the 1, or least expensive group, are listed alphabetically, followed by brands in price group 2, also in alphabetical order, etc. A quality judgment is wholly independent of price.

The Consumers' Observation Post

FROZEN CHICKEN OR TURKEY PIES are a popular item, but there have been some complaints that the contents of certain brands are mostly vegetables. Look for the brands that carry the inspection mark of the Federal Poultry Inspection Service. As of September 1, 1956, all such pies will contain 14 percent or more cooked poultry meat which is equal to 25 percent deboned raw meat, according to a new requirement by the U. S. Department of Agriculture.

* * *

MORE MENTHOLATED CIGARETTES are scheduled to make their appearance on the market. It has been discovered that reconstituted tobacco made from broken leaves and stems can be used in cigarettes if its taste is clouded by the mint flavor.

* * *

THE EASTMAN KODAK LABORATORIES are still processing Kodachrome film, but it must be handled through dealers, and the cost of processing is not included in the price of the film. Much dissatisfaction with the inconvenience caused by the government's decree forcing Eastman-Kodak to divorce processing from the sale of film has been voiced to Consumers' Research and various publications. For those who vacation beyond U.S. borders, the situation is different. Overseas you can buy Kodachrome film with processing included and deliver it to a foreign laboratory for processing. Eastman-Kodak suggests that you send to their Sales Service Division, Rochester 4, N.Y., for a free copy of Notes for the Traveler Abroad that gives advice on this point.

* * *

STRIPED FUR-LIKE FABRICS have made an appearance in the stores during the past year or more. Essentially the same Orlon-Dynel pile fabrics that resemble genuine fur, they are striped or marked by hand or by an air-gun process applied to the finished fabric. The National Institute of Dry-cleaning which has examined a number of samples warns that some of the garments made from these fabrics will not dry clean satisfactorily because the painted stripes do not always possess good colorfastness and may crock off, spread, lighten, or disappear in the cleaning process whether it be done by the furrier or the solvent method of cleaning. An increasing number of such fabrics are appearing on the market; some claimed to be cleanable by the furrier method.

* * *

SOMETHING NEW IN HAIR PREPARATIONS is the "hair brightener in shampoos" patented in France by Colgate-Palmolive Company. According to this patent, shampoos of the synthetic detergent type include fluorescent compounds of the substituted 4-methyl coumarin group to impart a definite brightening or luster to the hair. No doubt we shall have a new magic ingredient bursting forth in advertising any day now.

* * *

AS ELECTRICAL APPLIANCES BECOME MORE COMPLEX, the problem of finding a good serviceman becomes increasingly important. How to repair a simple failure quickly is not entirely a matter of know-how, but is often a question of design in the first place. Mr. J. H. Dunham of the Wisconsin Electric Power Company in a speech this past spring made a number of excellent suggestions that might well be heeded by manufacturers in the interests of their customers. Those parts of an appliance that occasionally need service or replacement should be easily and quickly accessible to a serviceman, without the need for special tools. It should not, for example, be necessary to do a major disassembling of the operating panel of an electric range to replace a 15c pilot light. Fuses should be accessible, and the location standardized. Less important parts might well be standardized so

that instead of 200 different types of switches that a service organization is expected to carry in stock, there would be 20 or 30 basic switches. Timers, oven lights, thermostats, and pilot lights all might be standardized to the profit of everyone in the industry. As Mr. Dunham pointed out, it is the serviceman who must keep the consumer happy with the beautiful appliance she has bought and she is easily displeased if she is deprived of its use for any length of time by delay in making necessary repairs or replacements. The consideration of servicing requirements of household appliances is going to be more important rather than less as new devices such as room air conditioners, dishwashers, clothes dryers, food waste disposers, and other items become more widely bought and used.

* * *

WATCH OUT FOR EGGS with blotchy, enlarged yolks. The cause, according to tests made at Cornell University, is a medicinal feed ingredient, nicarbazin, designed to control a certain disease in chickens. Poultrymen who are careless with feed containing this medication (which should be fed only to growing birds) sometimes fail to eliminate all traces of it from bins and feed supplies when hens get to the laying stage. The defect is particularly likely to turn up in shipments of eggs from the Northeast, according to the Farm Journal.

* * *

COLORED REFRIGERATORS are reported as helping to sell other colored household appliances. According to a Hotpoint survey, four out of ten housewives who purchase a refrigerator in a new pastel shade also buy one or more additional colored appliances. The dealers and manufacturers are happy at the prospect of having white refrigerators made obsolete. It is anticipated that refrigerators will now be traded in every seven years instead of the former 11-year interval.

* * *

THAT NEW AIR CONDITIONER in your automobile may add to your comfort in hot weather, but it's awfully tough on the engine. According to a technical paper delivered by M. R. Morrow of Humble Oil before a meeting of the Society of Automotive Engineers, air conditioners on cars pour heat under the hood; interfere with radiator and engine cooling; and cause vaporlock with high volatility fuels, even when the conditioner is turned off. Automotive News, in reporting the study, calls attention to the fact that the reported difficulties were concentrated in Texas where air conditioner sales are highest.

* * *

VACUUM TUBE TESTERS OF THE SPECIAL QUICK SETUP TYPE are making their appearance in supermarkets. The advertising appeal to the do-it-yourselfers is "U-test-M." Electronics reports that some stores carry as many as 125 different types of tubes for TV sets. Although in certain sections there is considerable antagonism on the part of local servicemen and tube jobbers, in other areas servicemen pay for the privilege of painting their name on the tester door to get the repair business when it turns out that just a new tube won't fix the set. As CR has previously pointed out, repairing a TV set is nothing for an amateur to monkey with because of the dangers of shock hazard and the complexity of the circuits and adjustments.

* * *

ALLEGED WEIGHT-REDUCING PRODUCTS involving various "plans" have been provided with an advertising code by the National Better Business Bureau. It is suggested that all media interested in maintaining public confidence in the integrity of advertising require the copy for such products to disclose that the use of the product involves a "plan" (when such is the case) and that the use of the product alone will not cause weight reduction when it must be used in conjunction with some "plan" or "method" involving a restricted diet. Plans calling for a low-calorie diet should not be represented as "easy," or as enabling reducers to "eat all you want," "eat the foods you want," etc. Furthermore, advertising should not make appetite-curbing claims or hunger-appeasing claims for substances that are not generally recognized as possessing those values as established by competent

(The continuation of this section is on page 33)



Combination refrigerator-freezers

THE HOUSEWIFE who wishes to replace an old refrigerator will often have to decide whether to buy a refrigerator with the usual freezer chest at the top or a combination refrigerator-freezer. If she asks the salesman what is the difference between the two kinds, he will likely tell her that the combination models have freezers that maintain a temperature around zero, which permits foods to be frozen and stored for relatively long periods of time, whereas the freezer compartments in refrigerators run at considerably higher temperatures (usually around 15 degrees) and are suitable only for short-time storage of frozen foods, a matter of a few days, or a week, perhaps.

The situation is somewhat confused by the fact that some manufacturers call their refrigerators combination refrigerator-freezers, while at least one other manufacturer calls his combination refrigerator-freezers just refrigerators. The trade should get together on an agreed nomenclature for these appliances. Originally

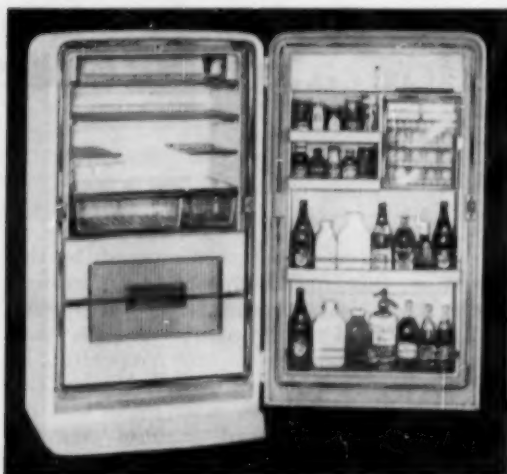
the two kinds were easy to distinguish by the fact that the true combination refrigerator-freezer had separate controls for the freezer and general food storage compartments so that the housewife could regulate the temperature in each compartment independently. None of the combination boxes in the most recent test by Consumers' Research had separate controls. In all except one, however, the freezer compartment was completely separate and sealed off from the refrigerator space, and this is nowadays the only evident difference between the two types.

Combination boxes are much higher in price than refrigerators and cost considerably more for electricity to operate. The extra cost for electricity is, of course, the natural result of the *lower freezer temperatures* (close to zero) they provide and the usually somewhat larger size of their freezer compartments.

The average purchase price of the refrigerator-freezer combinations tested by CR was \$38 per



Kelvinator K68F. Note the refrigerated plate on the rear wall of the cabinet for cooling the food storage space.



Crosley RFH-130. The only refrigerator-freezer in the test in which the freezer compartment was defrosted automatically. The freezer compartment is not fully insulated from the food compartment.

cubic foot compared to \$28 per cubic foot for refrigerators; the average operating cost for the combinations was about 40 percent higher than for the refrigerators; and the average temperature in the freezer was 2.5 degrees for the combination appliances compared to 16 degrees in the freezer chamber of the refrigerators.

Which kind to buy will, of course, depend upon the requirements of the individual home, as to the amount of frozen food likely to be stored and used.

Those who have a separate food freezer conveniently located may be wise to consider purchasing a refrigerator without a freezer chest, instead of a refrigerator of the usual type. (Two refrigerators which have an ice-cube compartment only, *Crosley RH-11* and *Norge C6 12*, are listed in the August 1956 BULLETIN.) If the separate food freezer is not conveniently located, because it is in the cellar or garage, for example, or if a frozen food locker is rented, a combination refrigerator-freezer with a freezer large enough to store about a week's supply of frozen foods should be considered. Those who do not have a separate freezer should purchase a combination box only if they use sufficient quantities of frozen food or regularly store ice cream to warrant the additional expenditure and the substantially higher cost for electricity of the combination refrigerator-freezer.

Prices

It will be noted from the listings that several of the combination refrigerator-freezers have list prices of \$500 or more, while a mail-order house sells an equivalent box for about \$300, including freight. This wide difference is one of several indications that the practice of the automobile industry in "packing" prices is being followed by the refrigerator industry. Packing or inflating the price to a high nominal figure allows the dealer a good margin for "trading" so that he can allow far above the market value for the old box being turned in, or if there is no box to be turned in, the dealer can offer a substantial discount that is supposed to make the customer feel that he is getting a very special deal. The big mail-order houses do not accept trade-ins on refrigerators, and their prices are consequently actual, not packed. Allowances of \$100 and \$200 for refrigerators traded in are not uncommon, and "free" \$200 television sets with the purchase of a refrigerator (presumably at full list price) are being offered. See reproduction of some current advertisements on page 7. The obvious conclusion is to shop around before you buy, keeping in mind that it is the net cash (or total sum on installments) you have to lay out that counts; the seemingly generous allowance you are offered for your old refrigerator is not important. Don't be fooled by a big trade-in allowance, or a big discount; either may be merely a way of making a new refrigerator seem to be a rare bargain.

\$100 off
GENERAL
 Deluxe REFRIGERATOR

NOT UP TO, BUT...
 ACTUALLY \$100.00 ON THIS
 BRAND NEW 10 Cu. Ft. 1956

GE ELECTRIC

Giant 12½ cu. ft.
PHILCO
 AUTOMATIC
\$200 OFF
 WAS \$499.95
 Now Only \$299.95

FRIDAY UNTIL 9
FREE! '200 PHILCO 1956 21" TV
 FREE! 2 Days Only FREE! SATURDAY UNTIL 5

With The Purchase
 of A New
**1956 G-E
 2-Door
 Refrigerator**
 or
**1956 PHILCO
 2-Door
 Refrigerator**
 Limited
 Quantities!

All Merchandise Fully Guaranteed



Automatic defrosting

In most refrigerators, the fresh-food section or general food storage space is cooled by the air circulating around the cooling surfaces of the freezer compartment. Moisture in the air collects as frost on these surfaces, and must be removed periodically, either manually or by some automatic device. In those combination refrigerator-freezers in which the freezer is completely insulated from the fresh-food storage space, there is no circulation of air between the two compartments. In such machines, the fresh-food compartment is cooled by a refrigerated plate or coils. This plate automatically defrosts at the end of each refrigeration cycle. The freezer is cooled either by coils on its outer walls or by refrigerated shelves containing cooling coils.

Of the 10 combination refrigerator-freezers tested by CR, nine had freezer compartments which were clearly separated from the rest of the box, and there was no provision for automatically defrosting the freezer. Lack of automatic defrosting for the freezer, however, is considered to be of minor importance. The collection of frost on the inside of the freezers

tested was relatively slow, owing to the fact that they either had a separate door or had an inside door which was well sealed against entrance of moisture-laden air when the large refrigerator door was opened. Instruction books (except for *Kelvinator*) called for manual defrosting, using a scraper, at periods ranging from twice a year to a few times a year.

In all the boxes except the two *Philcos*, the defrost water is drained to a tray in the base of the machine compartment, where it is evaporated. In the *Philco*, the defrost water is caught in a plastic container which must be emptied periodically. In the *Admiral*, *Frigidaire*, and *Norge*, the water is allowed to run down the rear walls to a drain in the bottom of the refrigerator compartment. This is intended to increase the humidity of the air in the refrigerator (which is often advantageous). In the *Crosley Duo Shelvador*, the freezer was not completely insulated from the refrigerator compartment and both compartments were automatically defrosted, as in the ordinary refrigerators. (For more details, see listing of this make.) The defrosting of all the combinations was found to be satisfactory.

Make	Number of hours required to reduce temperature in food storage compartment to 46°F	Hours per cu. ft.	Ice cubes, lb.	Ice-making test, hr. per lb. of ice cubes
Admiral CU1205P	3.9	0.35	3.0	1.45
Coldspot 46-6210W	2.9	0.25	3.2	0.95
Crosley RFH-130	4.2	0.35	8.8	0.45
Frigidaire CP-120-56	4.7	0.39	2.7	1.45
General Electric LH-14N	4.9	0.36	5.0	0.85
Kelvinator K68F-12	3.6	0.30	5.0	0.65
Norge TC6-11	3.2	0.29	5.0	0.70
Philco L-1164	3.2	0.30	3.6	0.55
Philco L-1266	3.6	0.29	3.3	0.60
Wards 69-1086	4.0	0.39	4.9	0.55

Table 1

Table showing time required for the various refrigerator-freezer combinations to be "pulled down" in temperature from 110°F (room temperature, outside and, at start, inside of box) to 46°. A short pull-down time per cubic foot indicates good reserve capacity in a refrigerator.

CR's tests

The same test methods were used for the combination refrigerator-freezers as were used for the refrigerators reported in CONSUMERS' RESEARCH BULLETIN for August 1956. Accordingly, space will not be taken to discuss the details of the tests here. Interested subscribers will wish to refer to the August BULLETIN.

Of the 10 combination refrigerators tested, only six were equipped with meat drawers and in only two of these (*Crosley RFH-130* and *Coldspot*) was the temperature lower (by about 3 degrees) than that of the rest of the food compartment. Short-time storage of fresh and smoked meats should be between 36 degrees and 40 degrees. (Temperatures in this range were provided by the five refrigerators tested that had meat trays.) The *Coldspot* was pro-

vided with a wire basket for storing eggs in the refrigerator compartment. Even though eggs are not stored in the most desirable position (point down), this is considered a better arrangement than egg receptacles in the door with which all the other boxes except *Frigidaire* were equipped. Constant severe jarring of the eggs, which is a natural result of slamming of the refrigerator door, is considered to cause deterioration of quality.

All of the combinations tested satisfied the electrical safety tests that measure the leakage current (which determines whether the appliance involves a shock hazard when it is new) and test the ability of the electrical insulation to withstand overvoltage.

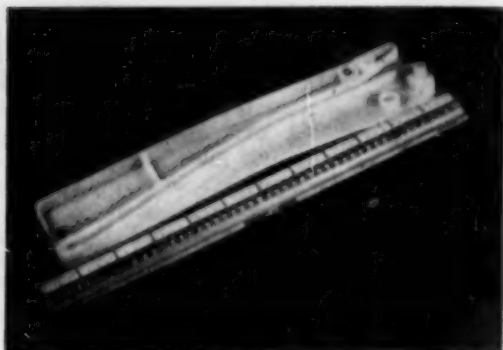
Details of performance in other important tests are given in Tables 1 and 2. In the listings, comments regarding time to lower temperature are based on hours per cubic foot.

A. Recommended

Coldspot (Sears-Roebuck's Cat. No. 46-6210W) \$290, plus freight. (\$24.60 per cu. ft.)

Considered very satisfactory in all major respects, including interior arrangement. Relatively low in price. Lowest operating cost per cubic foot for electricity of the group.

The interior arrangement of the refrigerator section of this combination was judged very good. (Half of one shelf could be folded down to permit storage of large items.) A bottle drawer for bottles and containers too large to fit shelves in the door was part of a sliding shelf. A slide-out clear plastic meat drawer was attached to the plastic drip tray and maintained a temperature about 3° below the average temperature in the food compartment. A wire basket was supplied



White plastic slide from Frigidaire Ice-Ejector. Warping (shown by the gap between the ruler and the plastic) was so bad as to make the device inoperative.

Table 2

A comparison of monthly operating costs of ten 1956 refrigerator-freezer combinations tested by CR. The electric rate is assumed to be 3½¢ per kwhr. The figures for monthly operating costs *per cu. ft. of total storage space* are at 90° room temperature with general storage space temperature maintained at an average temperature of 39°. This is a useful figure for comparing the efficiencies of several refrigerators in use of electricity.

Make	Price, \$	Total rated storage capacity, cu. ft.	Price per cu. ft., \$	Estimated monthly operating cost at room temperatures of			Percent running time	Average air temperature in freezer, degrees
				80°	90°			
				Cost, \$	Cost, \$	Per cu. ft., cents		
Admiral CU1205P	450	11.0	40.90	2.10	2.80	23	50	4
Coldspot 46—6210W	290†	11.8	24.60	1.85	2.45	21	50	5
Crosley RFH-130	550	12.0	45.80	2.85	3.80	32	50	4
Frigidaire CP-120-56	510	12.0	42.50	3.10	4.10	34	45	2
General Electric LH-14N*	580	13.7	42.30	2.80	3.70	27	60	2
Kelvinator K68F-12	500	12.2	41.00	2.25	3.00	25	55	2
Norge TC6-11	470	11.0	42.70	2.35	3.15	29	50	4
Philco L-1164	330	10.5	31.40	1.85	2.45	23	50	3
Philco L-1266	500	12.3	40.60	2.35	3.10	25	60	3
Wards 69—1086	280†	10.2	27.50	1.95	2.60	26	55	-4

† Plus freight.

* Would not pull down to 39° (minimum average temperature was 42° at coldest setting).

for egg storage (see text). Five shelves in the door (four with guards) were easy to clean, and provided ample storage space for the smaller bottles and containers. The butter and cheese compartments in the door had sliding doors. The addition of a shelf in the freezer would have made it more convenient; however, the arrangement was such that two ice-cube trays could be removed without disturbing the remaining contents of the freezer. Interior light was unprotected (undesirable). The door handle could be operated when both hands were full. There was inadequate clearance between the handle and the cabinet, with the result that the finish of the cabinet could be scratched by a ring on the user's hand. A door positioner holds the door in either of two open positions (a desirable feature). 1

Wards Tru-Cold (Montgomery Ward's Cat. No. 69-1086) \$280, plus freight. (\$27.50 per cu. ft.)

Satisfactory in all major respects, including interior arrangement. Relatively low in price. Operating cost, about average.

Time required to lower temperature from 110° to 46° was longer than average. Interior arrangement was judged satisfactory except for lack of a shelf for food

storage in the freezer. Two quarter-width shelves fold down to permit storage of bulky items. Butter and cheese compartment in the door had sliding doors (desirable). Door shelves would not hold 1-qt. soda bottles or 2-qt. milk containers, and no meat drawer was provided. (A meat drawer is a desirable feature.) Door could not be conveniently opened when the hands were full. Egg racks were built into the door and were not removable; this is not a good arrangement. 1

Philco Automatic, Model L-1164 (Philco Corp., Philadelphia) \$330. (\$31.40 per cu. ft.)

Satisfactory, and economical to operate, but interior arrangement of the freezer was judged to be not as convenient as in some other makes.

This refrigerator-freezer does not have the customary adjustable temperature control knob, but only an on-off switch to start and stop operation; however, if the temperatures obtained are too high or too low, a correction can be made by removing a small cover on the rear inside wall and turning a screw to adjust a thermostat. The interior arrangement was satisfactory except that no shelves were provided in the freezer for ice-cube trays or food storage; removal of ice trays would be difficult, on that account, when the freezer was fully

Physical Characteristics of Ten

	Admiral Dual Temp CU1205P	Coldspot 46-6210W	Croesley Duo Shelvardor RPH-130	Frigidaire Imperial Cold-Pantry CP-120-56	General Electric LH-14N
Dimensions					
Total volume (mfr.'s rating), cu. ft.	11.0	11.8	12.0	12.0	13.7
Freezer space volume, actual, cu. ft.	2.8	2.0	2.6	1.5	2.7
Shelf area, rated sq. ft.	19.0	19.0	22.7	18.8	24.4
Height, in.	59	61½	61	64½	70
Width, in.	31½	30½	31½	31½	31
Depth, in.	30½	31½	32½	31	29½
Features					
Freezer location	Full width at bottom	Full width at top	Full width at bottom	Full width at bottom	Full width at bottom
Freezer arrangement	Door hinged at right-hand side. Small roll-out basket.	Door hinged at right-hand side	2 roll-out baskets	Roll-out wire basket. Drop-down door.	Exterior door. 2 roll-out wire baskets.
Defrosting	Plate type, in general storage space only	Plate type, in general storage space only	Fully automatic (time clock)	Plate type, for general storage space only	Plate type, in general storage space only
Ice-cube trays	1 quick release 1 individual plastic cups	2 quick release	4	3 special ejector type 1 juice can tray	3 quick release
Main compartment					
No. of shelves, and type	3, fixed position	1, roll-out; 3, fixed position	2, roll-out; 1, fixed position; 2 small, fixed position	4, roll-out	3, revolving, adjustable; 2, fixed position
Meat drawer	No	Yes	Yes	Yes	Yes (loose pan)
Crisper or vegetable drawers	2	1, full width	1 (2/3 full width)	1, located in door	2
Door					
No. of shelves	2, fixed; also 2, fixed, in freezer door	5, fixed position	2, full width, fixed; 2, half width, fixed	2, fixed position	4, fully adjustable; 2/3 shelf, fixed position; 2, fixed, in freezer door
Butter compartment	Yes	Yes	Yes	Yes (with temperature control)	Yes (with temperature control)

loaded with food. Defrost water from the general food storage compartment was collected in a plastic container located on one of the shelves (not as desirable as piping the water to the machine compartment, because of the loss of storage space and possibility of the container's overflowing). Door shelves and egg tray were of plastic, removable, as is desirable, and easy to clean. Top shelf in door could be used only for quick chilling and for items not harmed by freezing. Door handle could be operated when both hands were full. One of the door shelves was wide enough to hold 2-qt. milk containers but not high enough for 1-qt. soda bottles. No meat tray or drawer. 2

Admiral Dual Temp, Model CU1205P (Admiral Corp., Chicago 47) \$450. (\$40.90 per cu. ft.)

Well-designed box, easy to clean, and about average in operating cost.

Time required to lower temperature from 110° to 46°,

somewhat longer than average. The freezer space with its two refrigerated shelves and roll-out basket was found to be very convenient to use. The freezer door also had two shelves for storage of cans of fruit juice. The shelves in the refrigerator section were conveniently placed and provision was made for storage of 1-qt. bottles too large to be accommodated on the door shelves. Egg containers in the door were convenient and removable but designed to store the eggs on their sides (not the ideal position, as eggs are best stored point down). The bacon compartment was of the correct shape to store sliced bacon as customarily packaged. Door handle design was very good, as the door could be opened by light pressure of the arm if the hands were full. The defrost water flows to a small tray in the bottom of the machine compartment where it is evaporated by a small electric immersion heater. This refrigerator-freezer is equipped with an inside luminous handle so that in some instances a child trapped inside could open

1956 Refrigerator-Freezer Combinations

Kelvinator Magic Cycle K68F-12	Norge Super Automatic 110 TC6-11	Philco Automatic L-1164	Philco Automatic L-1286	Wards Tru-Cold 69-1086	
					Dimensions
12.2	11.0	10.5	12.3	10.2	Total volume (mfr.'s rating), cu. ft.
2.6	1.9	1.8	2.4	1.8	Freezer space volume, actual, cu. ft.
20.8	15.8	15.0	16.0	13.6	Shelf area, rated sq. ft.
61½	60½	61½	65	59½	Height, in.
31½	27½	28½	30½	30½	Width, in.
29½	32½	30½	30½	27½	Depth, in.
					Features
Full width at bottom	Full width at bottom	Full width at top	Full width at top	Full width at top	Freezer location
Door hinged at right side. Roll-out basket for part of contents.	Roll-out basket. Door hinged at bottom.	Drop-down spring-loaded door	Exterior door	Door hinged at right side	Freezer arrangement
Plate type, in general storage space only	Plate type, in general storage space only	Plate type, in general storage space only	Plate type, in general storage space only	Plate type, in general storage space only	Defrosting
3 ice trays, quick release 2 juice trays	3 quick release	2 quick release	2 quick release	3 quick release	Ice-cube trays
					Main compartment
2, roll-out; 1, fixed; 1, fixed, sectional	2, roll-out; 1, fixed position	3, fixed position; 1, adjustable	3, fixed position; 1, adjustable	2, roll-out; 1, fixed; 2 small, fixed	No. of shelves, and type
No	Yes	No	Yes (glass dish)	No	Meat drawer
2	1	1, full width	1, full width	2	Crisper or vegetable drawers
					Door
3, fixed position	4, fixed position	4, fixed position	3, fixed position; 1, in freezer door	4, fixed position	No. of shelves
Yes	Yes	Yes	Yes	Yes	Butter compartment

the door from the inside. No meat tray or drawer. 3

Kelvinator Magic Cycle, Model K68F-12 (Kelvinator Division, American Motors Corp., Detroit 32) \$500. (\$41 per cu. ft.)

Satisfactory in all major respects; about average in operating cost, and except for "breakfast bar" (see below), well arranged for convenience.

Interior arrangement judged good. One shelf was divided into three sections, two of which could be turned down on hinges to provide storage for large items. One of the movable sections, however, lacked rigidity when in the horizontal position. Freezer, which had two shelves and a roll-out basket, was convenient to use. Two plastic trays were provided for storing cans of frozen juice. The door shelves were not large enough to hold 1-qt. soda bottles or 2-qt. milk containers. The "breakfast bar" in the door (for eggs, bacon, and juices)

was found to be somewhat unhandy, as the egg containers were part of the small plastic doors; they were not removable, did not store the eggs in the most desirable position, and were hard to clean; the bacon compartment was not of the correct size and shape to hold bacon as commonly packaged. Separate butter and cheese compartments with drop-down doors. No meat drawer was provided; such a drawer is a desirable feature. Though door handle could be operated with the hands full, it was less convenient than on some others. 3

Norge Super Automatic 110, Model TC6-11 (Norge Sales Corp., Subsidiary Borg-Warner Corp. Chicago 54) \$470. (\$42.70 per cu. ft.)

Satisfactory. Operating costs were about average.

The interior of the refrigeration section was conveniently arranged. Ice-cube trays could be removed

from the freezer through a separate door without opening the main freezer (good). The roll-out basket of the freezer had a sloping bottom which made its use somewhat inconvenient in removing frozen foods. Egg container in door was convenient and removable. The fronts of the door shelves were pivoted and could be turned down to provide easy access (desirable). The bottom door shelves would hold 1-qt. soda bottles but not 2-qt. milk cartons. Door handle could be operated with both hands full. 3

Philco Automatic, Model L-1266 (Philco Corp.) \$500. (\$40.60 per cu. ft.)

Has two doors and, except for its larger size and number of doors, is essentially the same as Philco L-1164 (except that doors could not be opened with the hands full).

For comments, see *Philco Model L-1164*. 3

B. Intermediate

Crosley Duo Shelvador RFH-130 (Crosley & Bendix Appliances Divisions, Avco Mfg. Corp., Cincinnati 25) \$550. (\$45.80 per cu. ft.)

A good but expensive appliance, and operating costs for electricity were relatively high (50% more than that of the most economical appliance in the group tested).

Time required to lower temperature from 110° to 46°, somewhat above average. During defrosting, there was a maximum rise in temperature of the air in the freezer of 18° in 26 min. from the time defrosting started. From that point the temperature dropped to normal in 2 hr. (considered satisfactory). A very conveniently arranged box both for general and frozen food storage. The two full-width door shelves accommodated 1-qt. soda bottles and the 2-qt. milk bottles. A cabinet in the door for storage of eggs and butter had a clear plastic door (desirable). The three egg trays were removable. For some, no doubt, the push-button beverage container in the door would be considered a gadget rather than a useful accessory. Door handle could be operated easily when the hands were full. Meat drawer of clear plastic was located directly above the freezer. (No insulation is used between the top of the freezer and the meat drawer, which is located in the food compartment directly above the freezer.) Temperature in the meat drawer was about 3° below the average temperature in the food chamber. This was the only refrigerator-freezer tested which had automatic electric defrosting for the freezer. This operated at 3 A.M. each day. In the food compartment, a moisture-collecting plate defrosted automatically at the end of each cooling cycle; defrost water from both compartments was piped to a tray at the bottom of the machine compartment, where it was evaporated. 3

Frigidaire Imperial Cold-Pantry 120-56 (Frigidaire Division, General Motors Corp., Dayton 1, Ohio) \$510. (\$42.50 per cu. ft.)

Some features made this a much less desirable box than the best of those tested. Operating costs were the highest of any box tested, and ice ejector failed to work (see following). Usable freezer space was very small.

Time required to lower temperature from 110° to 46°, longer than average. The egg drawer in which about

22 eggs could be stored loosely is considered preferable to egg receptacles in the door. The ice ejector failed to work after a very short time because of warping of the slides into which the trays were pushed (see page 8). Even if the slides were satisfactory, it is doubtful if this device is worth the space it takes up (about 1/4 of the freezer space), for quick release trays are about as convenient. Door shelves would handle 1-qt. soda bottles but not 2-qt. milk cartons. Shelves in the food storage compartment were somewhat difficult to clean and were not adjustable. CR is doubtful of the desirability of the use of a fan to circulate cold air as in this refrigerator. Increased air circulation tends to dry out foods, most of which keep better at a relative humidity of 85 to 90% (true of fruits, vegetables, and meats). 3

General Electric LH-14N (General Electric Co., Appliance Park, Louisville 1, Ky.) \$580. (\$42.30 per cu. ft.)

Satisfactory in most respects. About average in cost of operation, but the average temperature in the food storage section at the coldest setting of the control was too high.

Time required to lower temperature from 110° to 46°, somewhat longer than average. A leading feature of this box is that three of the five shelves in the main compartment were of the revolving type which, although they waste some space, are very convenient, particularly as they can be adjusted to any desired height. These shelves, however, are somewhat difficult to clean, and have sharp edges underneath which in some circumstances could cut the user's hand in removing food from the compartment below. In the freezer, the sliding basket and the separate section for ice cubes was found to be very convenient to use. The door shelves in the food storage section were fully adjustable, as is desirable, and a loose aluminum meat pan was provided. The magnetic door latch and the handle design were such that the door could not be opened when both hands were full. The freezer door latch was foot-operated, and not of the magnetic type; hence it would present danger to a young child playing with an unused refrigerator-freezer. Whether or not a child trapped in the refrigerator section would be able to operate the door from the inside would depend upon the amount of pressure he could exert on the door, which would open under a force of about 15 lb. (See August BULLETIN, pages 8 and 13.) (A bill has recently been enacted into law requiring all new refrigerators to have an inside door latch of satisfactory design after November 1957.) While 42° (the lowest average temperature that was reached in the food storage compartment with the coldest setting of the control at a room temperature of 90°) is satisfactory for general storage, it would be an advantage to be able to obtain a lower temperature when desired, and to have some latitude in temperature control when room temperatures are well above 90°. 3

* * *

Tests on an *Amana* combination refrigerator-freezer were not completed in time for inclusion in this report. Findings on the *Amana* will be reported in a future issue of the BULLETIN.

For the hunter

rifle sights

use of shotguns in deer hunting

table on deer rifle firing tests

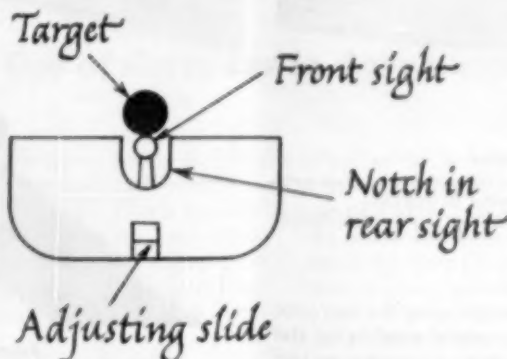
Rifle sights

A YOUNG PERSON whose eyes have excellent depth accommodation, and who shoots enough to be thoroughly acquainted with his equipment, can expect to do fairly well with the best open sights. Anyone who does not have very good vision probably will find it difficult to see a sharp image of three things (the rear sight, the front sight, and the target), all at different distances, at the same time. Also it is considerably more difficult, even for a good shot with excellent vision, to hold elevation precisely with open sights. If open sights must be used, about the best choice for the hunter is the low, flat-topped rear sight with a shallow "U"-shaped notch in conjunction with a moderate-sized gold bead up front.

The receiver "peep" rear sight, which may be had at prices ranging from around \$5 up, may be slightly slower than the open sight, but it is subject to much less error, particularly on a hurried shot, and it is much easier to adjust. With it the shooter looks through, not at, the rear sight and has only two objects to focus his eye on. For snap shooting, or general hunting purposes, the rear aperture should not be less than 0.075 inch in diameter. In poor light, 0.10 inch is not too large, although it will appear so to the uninitiated. Again the gold bead front sight is a good choice.

By far the best of the deer hunting sights is a good, low-power telescope with a fairly large dot, heavy crosshairs, or post reticle. Contrary to the opinion held by many, the use of a telescope does not guarantee hits. Telescopes are not game exterminators, but rather are excellent conservation aids, for the simple reason that they show the user what he is aiming at. The vision, or sight picture, is greatly improved by the scope. The other elements of accurate shooting—the hold, the breath control, the timing of the pressure on the trigger, and the final squeeze—are not aided by a telescopic sight.

Conservation authorities might be well justified in requiring deer hunters to use telescope sights. Certainly their use would prevent much of the useless killing of human beings mistaken for game. (This applies equally well to the varmint hunter, the woodchucker in particular, for each year a number of people are killed by chuckers who fire at a brown spot only to discover, too late, that it *was* another hunter's head.) As far as actual accuracy is concerned, a good rifleman, using suitable aperture front and rear sights on regulation targets and in good light, will do very nearly as well as he will with the best of telescopes. The scope really comes into its own when the light is poor and the target indistinct.



Sketch of "sight picture" to use with open rear sight. Top of bead or post front sight should be exactly even with the top of the rear sight and tangential to the bottom of the bull's-eye at which the shooter is aiming. This is the picture that the shooter can reproduce most accurately from one shot to the next.



Telescopes and mounts

Top: Lyman 4-power "All American" Telescope in Williams top mount on a custom built .257 Roberts.
Bottom: Weaver K4 telescope in Weaver side mount on a custom rebuilt Springfield .30-'06.

um-range rifles, it should be of $2\frac{1}{2}$ power, with an "eye relief" (distance between eye and eye lens cell) of not less than 4 inches. For longer hunting ranges, the power or magnification may run to four (4x), but should not exceed that if running shots are to be attempted.

A word of caution should be given here, particularly for the benefit of the "do-it-yourself" fan. Unless the rifle is drilled and tapped at the factory for the particular scope or "peep" sight purchased, it is highly recommended that the mounting be done by a capable gunsmith. Proper alignment requires a skilled and experienced craftsman. A capable gunsmith also can be of great help in selecting suitable sighting equipment for a particular rifle, especially if he is a hunter of some ability himself.

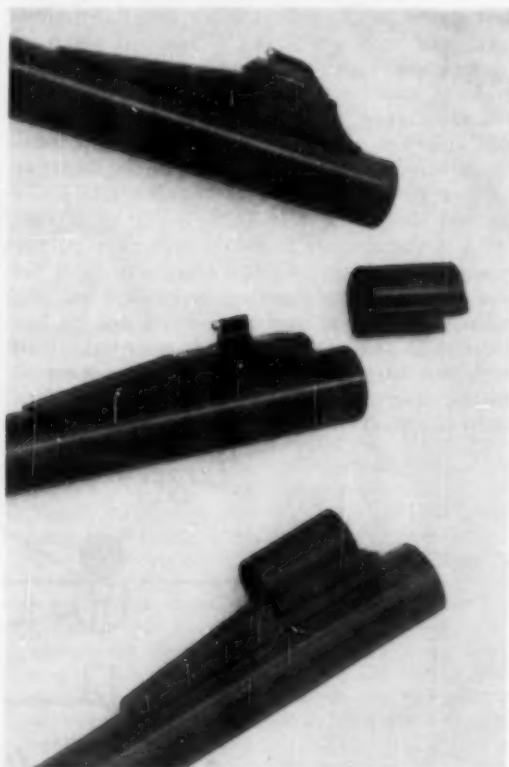
The greatest obstacle in the way of widespread adoption of the hunting telescope has been the failure of new owners to handle and use them enough to become thoroughly familiar with them. It is poor economy for a hunter to spend two



Rear sights

Top: Open rear sight on Marlin rifle, typical of those used on all rifles reported in the September BULLETIN.
Bottom: Redfield receiver "peep" rear sight on a custom remodeled Springfield.

The deer hunter's telescope may be any one of the several good, low-powered models on the market, attached to the rifle by a suitable mount as low as it can be without interfering with the functioning of the rifle itself. For short- or medi-



Front sights

Top: Remington 722A.
Center: Marlin 336C with hood removed.
Bottom: Marlin 336A with hood in place.



Three fine custom-built rifles with telescopes

Top: 22-250 ("Wildcat" varmint rifle) on Model 1917 or "Enfield" action, with Ackley barrel and a Fecker 16-power target scope.
Center: 257 Roberts on Mauser action with Ackley barrel, Wetherby stock, Lyman "All American" scope in Williams mounts.
Bottom: Custom remodeled Springfield 30-'06 with Bishop stock, Weaver K4 scope on Weaver side mount.
Base for Lyman Model 48 rear sight shown just forward from the bolt handle.

or three hundred dollars on equipment, another hundred or two on transportation, accommodations, guides, and license—to say nothing of his precious vacation time—and go into the woods without having fired a shot in practice. In spite of the fact that factory sight adjustments may not suit the purchaser at all, or may have been altered by tinkering "friends," many hunters do enter upon a hunting trip without prior practice shooting of their rifle.

Rear gun sights

A. Recommended

Lyman, Models 57 and 66. \$7.50. Has $\frac{1}{4}$ -min. adjustments for elevation and windage. (Model 57 fits bolt action rifles; Model 66 fits flat sided rifles.)

Redfield, Model 80. \$7.50. Micrometer adjustment.

Telescopic sights

A. Recommended

Boone Gunsco. \$38. Mount, from \$5 to \$7.50 extra. $2\frac{1}{4}x$. Can be mounted on Winchester 94 without interfering with the upward ejection of the empty cartridge. Can be adapted to other rifles listed in the September 1956 BULLETIN, but not considered as satisfactory as conventional style scopes for rifles that eject their cartridges at the side.

Lyman All-American. $2\frac{1}{2}x$, \$45.50; $4x$, \$49.50; without mounts. Mounts available from \$9.75 up.

Weaver J 2.5, \$22.50, $2\frac{1}{2}x$; **Weaver J 4,** \$37.25, $4x$. Prices include mounts. These two are the cheapest scopes that can be recommended; the other scopes listed are considered worth the additional dollars at which they are priced.

Weaver K2.5, \$37.50, $2\frac{1}{2}x$; **Weaver K4,** \$45, $4x$. Mounts, \$9.75 extra.

Use of shotguns in deer hunting

Some states, of which New Jersey is one, prohibit the use of a rifle in deer season, and require a shotgun firing buckshot instead. This is a safety measure necessary in flat, thickly populated sections. In some southern states, where deer are hunted in dense swamps by being driven with dogs, the shotgun with buckshot is used by choice.

Briefly, it may be said that almost any good modern shotgun is satisfactory for deer hunting. (Do not use a gun with the old-fashioned Damas-

cus or twist steel barrels—they are not safe with smokeless powder loads.) Many hunters prefer one of the several excellent pump guns now on the market. Auto-loaders are fine where their use is not prohibited by law. Nothing smaller than 20 gauge should be used on deer, and the 20 is somewhat on the weak side because of its inability to contain an adequate number of the large shot required. Twelve-gauge or 16-gauge guns are to be preferred.

Guns with improved-cylinder or modified-

choke borings frequently give better patterns with buckshot than those that are full choke. If a pattern control device is used, the hunter should experiment to determine the setting giving the best patterns with the size of shot being used. Above all, do not attempt shots at over 60 yards with buckshot, and then only if the gun patterns exceptionally well. Round pellets, such as buckshot, lose energy very rapidly, and long-range shots are almost certain to result in lost game that may die a lingering and useless death.

The rifled slug, fired from a shotgun, is a potent killer for use in states where rifles, or shotguns with slugs, are required. Some guns will group these projectiles well enough to make hits in vital areas fairly certain at ranges up to 75

yards if the shooter does his part. Special "peep" sights, and even telescopes, are available for application to shotguns for this purpose.

The hunter must, by all means, fire enough practice shots to learn where to hold when the game is in sight, and the shot must be fired quickly. As with buckshot, nothing smaller than 20 gauge should be used with slugs for deer. An examination of ballistic tables will show, for example, that the rifled slug for the .410 shotgun has approximately $\frac{5}{8}$ as much muzzle energy as the .22 *Hornet*, and only slightly over half as much remaining energy as the *Hornet* at 100 yards. At best, a shotgun with slugs is a makeshift to be used only in the absence of a good rifle.

Results of firing tests on six deer rifles

This table gives results of firing tests of six deer rifles reported on in the article "Some lower-priced deer rifles" in the September 1956 CR BULLETIN. Lack of space required its omission from that issue.

Both the size of the five-shot group, as mea-

sured from center to center of the widest shots, and that of the best four of the five, measured the same way, are given in the tabulation. In several cases, the sizes ("spreads") of otherwise good groups were increased greatly by one shot out of the five.

Rifle		Extreme spread of groups in inches				100-yd. average	Greater spread*
		50-yd. group	100-yd. groups				
			Group 1	Group 2	Group 3		
Marlin 336-C .30-30	Five shots	2.9	5.0	3.3	3.5	3.93	About equal Vertically
	Four of the five	2.2	4.0	1.8	3.4	3.07	
Marlin 336-A .35 Remington	Five shots	2.7	4.5	5.4	2.4	4.1	Vertically Vertically
	Four of the five	2.1	3.1	5.0	2.0	3.37	
Winchester 94 .32 Special	Five shots	1.4	4.7	6.0	1.9	4.2	Vertically About equal
	Four of the five	1.0	2.5	2.3	1.1	2.16	
Savage 340-B .30-30	Five shots	1.4	3.0	3.2	5.0	3.73	Vertically Horizontally
	Four of the five	1.1	2.9	2.7	2.3	2.63	
Remington 722-A .257 Roberts	Five shots	2.3	1.75	2.7	2.4	2.28	About equal Horizontally
	Four of the five	0.7	1.33	1.8	1.23	1.43	
Remington 721-A .270 Winchester	Five shots	1.9	2.7	3.7	3.5	3.3	Vertically Vertically
	Four of the five	1.0	1.8	1.7	1.8	1.77	

Note that, in a number of cases, the large size of the five-shot group was caused by one shot placed well away from the others. This is particularly noticeable in the case of the Winchester 94 and the Remington 722-A.

*Horizontal and vertical spreads were examined for both four-shot and five-shot groups. The trends of these spreads are indicated in this column.

Defrosting systems of three refrigerators

With ratings of ten refrigerators
reported in the August 1956 Bulletin

IN THE August 1956 issue, three refrigerators in the 10- to 11-cubic-foot range, *Crosley RH-11* (11 cubic feet), *Crosley DAIH-105* (10.3 cubic feet), and *Kelvinator K46F-11S-R* (10.6 cubic feet), were given ratings which were tentative, pending tests of their automatic defrosting devices. In the *Crosley RH-11*, to provide maximum refrigerated space, there was no compartment for frozen food, but a small compartment was provided for making ice cubes. The ice-cube compartment is defrosted automatically at a pre-set time once every 24 hours by an electric heating coil attached to the surface of the evaporator. In the food storage space, frost collects on the plate which cools this compartment and that plate is defrosted automatically at the end of each cooling cycle. The defrost water from both compartments drains into a tray in the motor-compressor compartment, where it is evaporated. This method of defrosting was found to be satisfactory, and the air temperature in the food storage space was not raised significantly during the defrosting.

In the *Crosley DAIH-105*, all of the frost is collected on the cooling surfaces of the freezer compartment. These walls are defrosted by an electric "heating" coil once every 24 hours at a pre-set time (3 A.M., if the clock is set at correct time). The defrost water drains into a tray in the machine compartment where it is evaporated by heat from the condenser. At a room temperature of approximately 80 degrees, there was, during defrosting, a maximum rise in temperature of the air in the freezer compartment of 22 degrees in 18 minutes from the time defrosting started. From that point, the temperature dropped to normal in 1¾ hours. It was judged that this would not adversely affect frozen foods in the freezer compartment, but there is a tendency for the small amount of defrost water that does not drain to collect on the food packages, freezing them together and to the freezer, making their removal difficult. On account of this sometimes troublesome refreezing of defrost water, Consumers' Research prefers the semiautomatic type (push-button) defrost-

ing. This type of defrosting mechanism permits the housewife to transfer the frozen food to the refrigerator section for about 20 minutes while the defrosting is in progress, and then after the cycle is completed, she puts the food back into the freezing chamber.

The *Kelvinator K46F-11S-R* uses the hot gas of the refrigerating system for defrosting by the preferred semiautomatic (push-button) method. All of the frost is collected on the cooling surfaces of the freezer compartment and the defrost water drains to the chiller tray located below the freezer, from which it must be removed manually. During defrosting, there was a maximum rise in temperature of the air in the freezer compartment of 13 degrees in 23 minutes from the time defrosting started. From that point, the temperature dropped to normal in 27 minutes. The performance of the semiautomatic defrosting was considered very satisfactory.

The ratings of the ten refrigerators (three of which were given tentative ratings in CONSUMERS' RESEARCH BULLETIN for August 1956) will now be as follows. The 1, 2, 3 price ratings are based on price per cubic foot of combined food-storage and freezing space.

A. Recommended

Coldspot Super Mart.	\$355, plus freight.	2
Crosley, Model DAIH-105.	\$340. Formerly <i>B. Intermediate (Tentative)</i> . The higher rating is given because the <i>DAIH-105</i> came within 1° of meeting CR's requirements for air temperature in the freezing compartment.	3
Crosley, Model RH-11.	\$370.	3
Norge Food-Star, Model C6 12.	\$370.	3

B. Intermediate

Admiral, Model DA-1110.	\$220.	1
GE, Model LB 10NB.	\$230.	1
Wards Deluxe Tru-Cold.	\$220, plus freight.	1
Frigidaire Super, Model S-121-56.	\$311.	2
Kelvinator, Model K44F-11-R.	\$290.	2
Kelvinator, Model K46F-11S-R.	\$340.	3



New Singer zigzag sewing machine




ZIGZAG-STITCH sewing machines are the ones likely to get the greatest attention nowadays when a woman is shopping for a new machine. She will probably find the problem of selection somewhat confusing, for new models are coming on the market from time to time, as manufacturers improve their designs to make zigzag machines that are easier to operate.

The Singer Sewing Machine Co. has recently brought out a new automatic zigzag sewing machine, *Model 319*, list-priced at \$340 and up. The 319 provides a simpler control of automatic zigzag sewing than another older *Singer* machine, the 306. The *Model 306*, which sells at \$298, provides automatic zigzag sewing by means of cams which are attached manually to an arm on the front of the machine. The November 1955 CONSUMERS' RESEARCH BULLETIN carried a detailed report on that model.

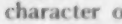

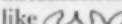
The outstanding feature of the new *Model 319* machine is a series of five cams which are built in and are engaged by lifting levers at the top of the sewing head. These cams can be used singly or with each other in any combination, an arrangement which provides a great number of stitch variations. In addition, any one of a number of cams called "removable Fashion Discs," may be attached to a shaft at the front of the machine, as on the *Model 306*. Twenty-five separate "Fashion Discs," packaged in a conveniently labeled transparent plastic box,

were supplied with the *Model 319* tested. These discs can be used, either alone or in connection with the built-in cams, to give a still greater variety of patterns.

The *Model 319*, like the *Model 306*, will do three kinds of zigzag stitching automatically, Steps I, II, and III.

Step I—owings needle from left to right to make a pattern like ; Step II—changes the position of the needle to make a pattern like ; Step III—Steps I and II simultaneously, which can result in a pattern like .

A detailed explanation of these steps, along with a discussion and rating of 19 makes and models of sewing machines, appears in the November 1955 CR BULLETIN. (A reprint of the article is available at 10 cents.)

There is more to zigzag stitching than just the number of different kinds you can make, however. Sometimes it is useful to change the length of the patterns without changing the character of the stitch, as from  to  as can be done on the *Necchi Supernova* and several of the *Pfaff* machines, but is not provided for on other makes. The *Necchi Supernova* and the *Elna Supermatic* machines have a cam which reverses the motion of the machine automatically, making possible intricate patterns like . The *Singer 319* does not have automatic controls for these two stitching operations. Some women, however, might not feel the need for so great a variety of zigzag stitches as some of the new sewing machines make possible.

The *Singer 319* would have a distinct advantage in places where Singer service could be provided with certainty and promptness. Service for some of the foreign makes of sewing machines might be a problem either now or at some future time.

A. Recommended

Singer, Model 319 (Singer Sewing Machine Co., Singer Building, 149 Broadway, New York 6) \$338 (portable); \$378 to \$435 (cabinet models, depending on style). Aluminum head with smooth, soft green finish. Weight of head, 22½ lb. (relatively light). Rotary mechanism, with bobbin in vertical position, facing the operator. Feed could be dropped for darning and making certain ornamental stitches by lifting the sewing head and loosening a thumb screw on the bottom. Three automatic zigzag sewing steps provided by five cams built into the machine. Twenty-five accessory cams (called "Fashion Discs") are supplied. Model also can use a double needle which makes possible sewing with threads of two different colors, thus changing the appearance of any pattern.

Notes for the consumer

on painting the house

Choice of manufacturer

Paint should be bought from well-established concerns that have, by their past performance, given evidence of intending to remain in business and to continue their existing trade brands. Large paint manufacturers need not necessarily be given preference over smaller manufacturers of good reputation, if there are small manufacturers near by, for the latter may give better service over their particular trade area.

There is no need to buy a special one-coat house paint. Most repainting should be done as one coat only, except where the previous paint is badly worn, but good one-coat painting can be done easily enough with the regular "finish paint" if it is of good quality.

The best paints for most homeowners will have a substantial proportion of white lead; a high percentage of linseed oil; will be free from resins, whether synthetic or natural; and have a low proportion of bodied oils, thinners, and driers. (An exception must be made for trim paints, which in deep colors cannot contain much white lead and may contain resins and more bodied oils and thinners than good white paints do.)

The widely-advertised trade brand will normally go further, last longer, and cost less in the long run than the lower priced or "second grade" paints. Paint bought by painters is often of the cheaper grade, and so-called "painters' lines" of the various manufacturers are not considered suitable for the best paint work.

Painting a frame house

Painting can be done at any time of the year when the painter "can take it," and when certain other conditions are not unfavorable, as explained later on this page. It is best done during the spring or the first half of the summer so that the new paint can receive a few months of strong sunshine before the cold and dampness of winter arrive. Paint applied late in the year often picks up more dirt and dust than paint applied early. Moreover, paint applied and

dried during warm weather resists water better and is less sensitive to blistering and peeling caused by moisture than paint that dries during cold weather.

In hot weather, the sensible painter will "follow the sun around the house," both for his own comfort and to avoid the chances of "temperature blistering." Newly applied paint can blister if the surface is warmed by strong sunshine during the interval when the new coating has hardened at the top but is still soft underneath. If possible, the painter should work on the west side in the morning, on the east side in late morning or afternoon, on the south side when the sun is well past meridian, and on the north side at convenience.

In moderate weather or on cloudy days such precautions may be unnecessary. When necessary, painting can be done in the coldest weather the painter can stand and yet do his work properly. The paint may have to be reduced with a little extra turpentine or other paint thinner to bring it to the consistency that it would have at normal outdoor temperatures. Positively no linseed oil should be added. The paint must be brushed out into thin coats. Do not paint on days when the weather report indicates that there may be a drop of 20 degrees or more in temperature that night. The penalty for violating any of these rules may be a badly wrinkled coat of paint next day.

At any season, surfaces should be reasonably dry when paint is applied. As a rule, wood surfaces are dry enough if they feel dry but metal surfaces should be dry and preferably should feel fairly warm or at least not cold. It is wise not to paint when there is much chance of rain or fog during the next 24 hours or of dew or frost at night.

"Breather tubes"

Claims made for certain breather tubes intended to be inserted through the siding of a house to carry off moisture, and thereby improve the life of the paint, are not considered to be correctly based on sound technical observations.

Spray painting

When done competently, spray painting of buildings is as durable but not more durable than brush painting of equal quality. Spraying gives a less finished job and tends to produce spattering of lawns, shrubbery, foundation surfaces, wood trim; also presents difficulties if one wants to use a paint of contrasting color for the trim. It does not significantly reduce cost on ordinary residences with many windows and doors, where good workmanship is required.

For farm buildings, where standards may be lower and there are large unbroken wall areas to be painted with a single color, spray painting will, when well organized, save a good deal in labor cost. Competent spray painting contractors, however, are scarce, and the others make mistakes that may be serious. In towns and cities there is the problem of trade union rules also to be considered.

For the householder, spray painting is much more difficult than brush painting and will not ordinarily pay, because of the high cost of the grade of equipment which is good enough for the work. Don't attempt to carry out spray painting of a house with insecticide or garden-spray guns or with any light equipment of a sort that might be suitable for thin lacquers, varnishes, or whitewash.

If spray painting is to be done by a contractor, be sure that he is experienced and competent, and that he will not skimp by use of cheap paint or by overthinning or applying the paint too thinly.

Some types of paint and lacquer are highly dangerous for consumers to use in spray equipment because of harmful ingredients in the paints themselves, and because of the highly toxic solvents usually employed in quick-drying paints intended for spraying.

New kinds of paint

Avoid any new house coating material supposed to last many years or to "give a steel-like" coating or to represent some entirely new and important development in paints. In some cases, there will be an allegation that the product has been approved by the Underwriters' Laboratories, or the promoter may refer to some sort of endorsement by a commercial testing laboratory. Neither of these statements, even if it should be true, is relevant to the question of whether the type of product concerned will provide a lasting and suitable coating for a house.

Some of the new products are alleged to give coatings many times thicker than paint does, and there are such claims as "ends painting forever"; "lasts a lifetime"; is "fused on" the surface so that it will never crack, chip, flake, or scale; that it resists weather, fire, rot, termites, and every other hazard; and insulates against heat and cold. Consumers should know that thick coatings are not good and when applied over old paint are likely to prove very unreliable in performance, with a surface that can be restored to good appearance only at very high cost. For more detailed discussion of this type of plastic or mastic covering, see CONSUMERS' RESEARCH BULLETINS for March 1956 and August 1953.

CR advises its subscribers to give absolutely no weight to claims made for plastic, mastic, or other coatings to be sprayed on existing houses in thick coatings and to be applied only by the seller of the material or a contractor engaged by him.

Another type of coating is a plastic, alleged to be similar to what has been used for Army and Navy protection of tanks, electronic equipment, etc. Suitability of this type of material for the protection of buildings has not been established by appropriate tests in the field, and by the long experience that is needed to establish the reliability and "recoatability" of a given type of paint.

Painting metal

Consumers are advised not to consider the use of paints which are asserted to do a good job over rusted areas of metal without prior removal of the rust by wire-brushing or scraping, unless and until the promoters of such paint offer evidence in the form of signed technical reports of competent experts prepared and issued by well-qualified laboratories in the field.

Acknowledgements

The following is a list of credits for pictures in this BULLETIN supplied by outside sources.

Cover—Tru-Cold, Montgomery Ward & Co., Inc.

Page 6—Kelvinator Division, American Motors Corp.; Crosley and Bendix Home Appliances Divisions, Avco Mfg. Corp.



Laundry detergents

TO OBTAIN the best results in home laundering, there are three basic requirements: a satisfactory water supply, an effective detergent, and efficient mechanical action. None of these by itself nor a combination of any two of them will assure a good job in washing clothes. All three are necessary.

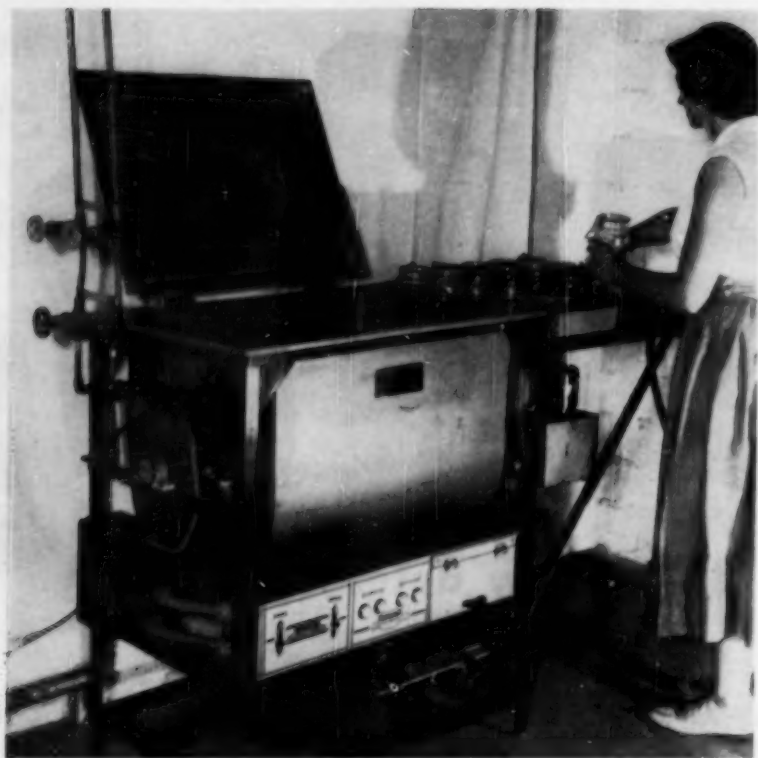
Water is important, but not any water will do. It must be clean and clear, heated to a suitable temperature for the fabrics to be washed, sufficiently soft, and available in the proper amount for the load of clothes. Water must not only be clear and colorless, but free of foreign matter of certain kinds (e.g., iron) that might cause chemical staining of the items being washed. The right water temperature is determined by the type of clothes being washed, i.e., cool or warm for delicate fabrics and hot for cottons and linens. In one study, it was found that about one-third more soil was removed with soap from cottons in water at 140°F than in water at 100°F. Synthetic detergents also removed more soil in hot water.

Hardness of water is an important factor in obtaining good results. This is particularly so when soap is used, for the softer the water the better the final results. Some soaps contain chemicals which soften the water, but even with such soaps it is still true that their effectiveness is greatest when they are used in soft water. While synthetic detergents perform more effec-

tively in hard water than soaps, they, too, do a better job when the water is soft.

When washing colored cottons, be sure that the dyes are colorfast, because some colors run or fade when washed in alkaline detergents or heavy-duty detergents. Too little or too much water or detergent in a washer can impair the mechanical agitation of the water and clothes, and thus cut down the efficiency of the washing action. Thus it is vitally important to use a reliable means of measuring the amount of detergent and the weight of clothes for a given amount of water. It is usually best to follow the instruction booklets supplied with the washing machine.

The choice of a detergent will play an important part in the final results in washing. Good washing depends not only on the composition of the detergent, but also on the type of washing machine. Manufacturers of washing machines which wash by revolving the clothes in a horizontal drum (e.g., Westinghouse and the various washer-dryer combinations) recommend that a low-sudsing or controlled-sudsing synthetic detergent be used. Such detergents as *Ad*, *All*, *Dash*, *Fun*, *Spin*, *Stanson Suds*, and *Vim* fall in this group. Machines which wash by stirring the clothes with a mechanical agitator on a vertical shaft are not so limited as to the type of detergent that can be used, for in the agitator machines, a sudsing type of detergent, either



The Launder-O-Meter, shown above, is a laboratory appliance used for testing the washing ability of laundry soaps and synthetic detergents. In use of this apparatus, soiled cloths are washed in separate containers, each in a solution of one of the detergents being tested. The solutions are held closely to constant temperature as the jars containing them are agitated to produce the washing action.

soap or synthetic detergent, will work satisfactorily. Synthetic detergents which fall in this group are: *American Family, Cheer, Fab, Felso, Kirkman's, Oxydol, Rinso, Super Suds, Surf, and Tide.*

It is important that the right amount of detergent be used. If too little is employed, soil-removal action will be poor. Too much detergent is apt to produce suds in excessive amounts and cause trouble with the operation of the washer. Also, when too much detergent is used, a larger quantity of water is required for rinsing, for rinsing is simply a matter of dilution of the residues of detergent and soiling materials from the wash.

The mechanical action of the washer must be right for the clothes being washed. Too fast and vigorous an action will cause considerable wear and tear on your clothes. If the action, on the other hand, is too gentle, the result will be unsatisfactory and the clothes only partly cleansed.

Hints on washing

A few washing hints are given here which will, if used with the proper water, detergent, and mechanical action, contribute to better results. Fabrics which have the same degree of soil and can stand the same water temperature, detergent, and washing time should be washed together. No more than two sheets, plus a number of odd pieces, should be combined as a single load. A combination of large and small pieces as a given load gives a better washing action than a number of large pieces washed alone.

Preparation of clothes for washing. It will be necessary to soak certain clothes before washing them. Such pre-soak preparation will remove some spots and stains, and loosen foreign matter and excessive soil in badly soiled areas. The soaking should be done for about 15 minutes to a half hour, in water to which a detergent has been added. Be sure to tie apron strings, close all zippers, and remove shoulder pads and contents of all pockets before soaking.

Proper load. Every washing machine has a load limit beyond which the efficiency of the machine will be reduced quite noticeably. It is therefore necessary not to exceed the recommended weight limit of clothes as given by the manufacturer's instructions. Overloading prevents the free flushing action of water carrying the soap or synthetic detergent through the clothes. As a matter of fact, a pound less than the weight of the clothes recommended by the washer manufacturer will usually give better results than the full rated load.

Washing time. While all automatic washing machines have controlled wash cycles, any of them can be stopped and reset for a longer wash cycle if this should become desirable. While length of washing time does have an effect on the machine's washing action, average soil is ordinarily removed within the normal time of operation. Avoid overwashing; too long a washing time may redeposit some of the soil and, besides, cause greater wear of the clothes. Unless the clothes to be washed are unusually dirty, the regular cycle of washing and rinsing times as provided by the manufacturer will usually suffice.

Test results

In order to evaluate the relative effectiveness of the popular synthetic detergents in soil removal and their tendency toward redeposition of soil (anti-graying action), cotton cloths, soiled in a standard manner, were washed with each synthetic detergent at low and moderate concentrations in hard and soft water. The foaming or sudsing capacity and stability of foam were also measured. Included in the ratings is *Wisk*, a new liquid heavy-duty synthetic detergent for the home laundry. For the convenience of subscribers, ratings of synthetic detergents which have been reported in recent BULLETINS are also included here.

High-sudsing synthetic detergents

A. Recommended

Breakwater (National Cooperatives, Inc., Chicago) 1 lb. 4 oz. box. High sudsing in soft water; moderate to low sudsing in hard water. *Soil removal*, good. *Anti-graying action*, good in soft water, fair in hard water.

Dreft (Procter & Gamble, Cincinnati) 30c for 1 lb. 2 oz. Light-duty. *Soil removal*, good. *Anti-graying action*, good in soft water, fair in hard water.

Fab (Colgate-Palmolive Co., Jersey City, N.J.) 30c for 1 lb. 3 oz. *Soil removal*, good. *Anti-graying action*, good in soft water, fair in hard water.

Oxydol Detergent (Procter & Gamble) 32c for 1 lb. 3 oz. High sudsing, except at low concentrations in hard water. *Soil removal*, good. *Anti-graying*, very good in soft water, fair in hard water.

Rinso Sunlight Detergent (Lever Bros. Co., N.Y.C.) 30c for 1 lb. 6 oz. *Soil removal*, good. *Anti-graying*, very good in soft water, fair in hard water.

Surl (Lever Bros. Co.) 30c for 1 lb. 3 oz. *Soil removal*, good. *Anti-graying*, good in soft water, fair in hard water.

Tide (Procter & Gamble) 30c for 1 lb. 3 oz. High sudsing, except at low concentrations in hard water. *Soil removal*, good. *Anti-graying*, good in soft water, fair in hard water.

* * *

The following two detergents were considered slightly less effective than the foregoing seven brands in soil removal in both hard and soft water.

Kirkman All-purpose Detergent (Kirkman & Son, Div. Colgate-Palmolive Co.) 30c for 1 lb. $\frac{3}{4}$ oz. *Anti-graying*, good in soft water, fair in hard water.

Super Suds Detergent (Colgate-Palmolive Co.) 30c for 1 lb. 7 oz. High sudsing, except at low concentrations. *Anti-graying*, good.

B. Intermediate

Breeze (Lever Bros. Co.) 30c for 15 oz. *Soil removal*, fair at low concentrations, good at high concentrations. *Anti-graying*, good in soft water, fair in hard water.

Cheer (Procter & Gamble) 30c for 1 lb. 5 oz. *Soil removal*, fair. *Anti-graying*, very good in soft water, fair in hard water.

Sail (The Great A & P Tea Co., N.Y.C.) 23c for 1 lb. 3 oz. *Soil removal*, good. *Anti-graying*, relatively poor.

Trend (Trend Div., Purex Corp., St. Louis) 39c for 12 $\frac{1}{4}$ oz. Light-duty. *Soil removal* and *anti-graying*, fair.

Wisk (Lever Bros. Co.) 1 pt., liquid. *Soil removal*, fair. *Anti-graying*, relatively poor.

Low-sudsing synthetic detergents

B. Intermediate

Ad (Colgate-Palmolive Co.) 39c for 1 lb. 8 oz. *Soil removal*, fair. *Anti-graying*, very good in soft water, good in hard water.

All (Monsanto Chemical Co., St. Louis) 39c for 1 lb. 8 oz. *Soil removal*, fair in soft water, relatively poor in hard water. *Anti-graying*, very good in soft water, good in hard water.

Dash (Procter & Gamble) 37c for 1 lb. 9 oz. *Soil removal*, good in soft water, relatively poor in hard water. *Anti-graying*, good in soft water, fair in hard water.

Vim (Lever Bros. Co.) 1 lb. 5 oz. *Soil removal*, fair in soft water, relatively poor in hard water. *Anti-graying*, very good in soft water, good in hard water.

Off the editor's chest

(Continued from page 2)

automobile industry when consumers simply refused to buy the new models at the increased prices and assembly lines were forced to shut down to prevent overloaded dealers from becoming swamped is still vivid in some quarters.

The most efficient automatized factory in the country cannot produce cars or appliances to sell at mass-production prices unless it works at or near full capacity. If consumers do not buy in sufficient quantity, and the line is shut down for any length of time, the heavy overhead costs must result in higher prices. There is, perhaps, a warning signal, in the flourishing sales of secondhand appliances in various sections of the country, that new refrigerators and TV sets, for example, may be pricing themselves out of the market.

Warnings appearing in various journals that these upward price spirals constitute inflation by wage increases have gone unheeded, for so long as what is produced is eventually sold, or at least distributed to dealers, there is not likely to be any serious attempt on the part of manufacturers to subject themselves to the unpleasant harassments and unfavorable publicity involved in a strike by resisting powerful unions' demands for ever-higher wages. As a matter of fact, there is an influential school of economic thought that advocates 3 to 5 percent inflation annually in order to maintain "full employment," "a steadily rising business level, and an unlimited period of prosperity." So long as inflation of this order can be counteracted by increases in productivity brought about by the unremitting hard work and ingenuity by design and production engineers to cut costs, introduce new economies in operation, and use less expensive raw materials, prices of finished products may not get out of hand.

One difficulty is that there is a limit to the cost cutting that can be achieved by even the most advanced techniques of modern production engineering and scientific skills. Another bar to the continued success of the gradual-inflation-full-employment formula is that, while organized labor as a protected monopoly is able to enforce its demands for higher wages at will, it represents only a minority of the working population in this country. Its gains are made at the expense of those whose bargaining power is not given special sanctions, who live on fixed incomes, such as pensions or retirement pay, or who are civil service employees supported by

taxpayers who have their own financial problems and often do not look with favor on cost-of-living increases for government employees. In some cases the standard of living of members of these groups will be irrevocably reduced by any continued onward and upward trend of prices.

The importance of the consumer in this whole picture is that he must be kept stimulated to buy in ever-increasing quantity the multitude of products as they come off the assembly line or the entire economy will grind to a disastrously slow pace. Whenever consumers in considerable numbers stay out of the market, as was the case with automobiles during the first half of 1956, economists are stimulated anew to start examining consumers' habits and motivations. Whether people have the money or not, psychologically it appears that at some point they refuse to buy products they think are priced too high. Since there is an abundance of mileage left in the cars they own, they can refrain from buying a new automobile, without great inconvenience. If needed, the used-car market can provide an ample choice at much lower prices than those charged for new cars. It seems obvious that both management and automobile workers could be forced to turn out cars at more reasonable prices if a sufficient number of consumers really decided that was what they wanted and made known their wishes on that point.

Whether the spiraling costs due to the wage hikes in the steel and aluminum industries will be an important factor in raising prices of household appliances, television sets, and automobiles higher than consumers are willing to pay is still an unanswered question that is causing sales managers many an anxious moment. If used-car marts and secondhand appliance stores experience thriving business in the coming months, it will be a sign that consumers are actively casting their votes against the high-cost production policies that currently prevail. As one observing financial commentator has pointed out: "Low, economical prices can go a long way to insure the backlog of orders that keeps industry working full time."

He might have added "and consumers steadily buying the products turned out by industry." The cutback in automobiles made necessary by the decline in sales this past year was hardly extensive enough to be called a full-fledged buyers' strike. It should, however, be regarded as a black speck on the horizon, a hint of what a

possible storm of public disapproval on a wide scale might be like if prices get out of reach. Both labor and management will do well to bear in mind that neither can prosper without the support of the consumer. It's high time they

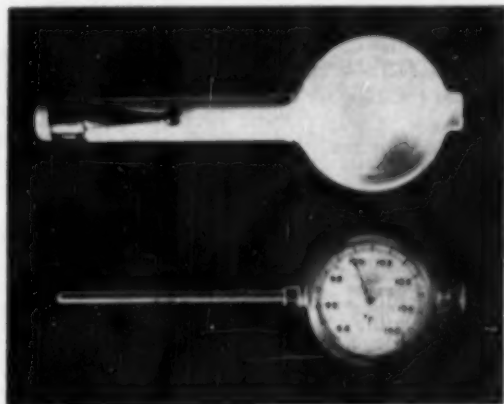
both started to think of themselves as being in business and in production to serve consumers, and not just to deal with each other on the best terms that can be worked out in lengthy "bargaining conferences."

A dial fever thermometer

EVERY home's medicine cabinet should have a fever thermometer. The body's temperature is one of a number of good indicators of health. But the usual mercury-in-glass thermometer is often broken, perhaps just when it is vitally needed. The mercury thermometer is also inconvenient to "shake down" before using, and then is hard to read accurately, and the glass tube is a hazard if it should chance to be broken in use.

CR has tested a thermometer, the *Cary Clinical Thermometer* made in Switzerland, designed to overcome the poor readability and some other disadvantages of the common clinical thermometer. The designer of the *Cary* has produced a neat and readable instrument, but errors were found that were about twice the maximum permitted by federal specifications for fever thermometers, and readings taken at different times at the same actual temperature differed from each other by as much as 0.4 degree. For many users, the ability of the *Cary* to endure a certain amount of unavoidable rough treatment would tend to offset its higher price and larger errors, as compared with mercury-in-glass clinical thermometers.

The *Cary* is a bimetallic, dial-type thermometer with a case and stem of stainless steel. After the stem has been in the mouth for the proper time, a little button on the top end (see illustration) is pushed in to make the hand travel around the dial to indicate the temperature. The hand then stays in position, showing the temperature at the time the button was pushed, until the button is pulled out again.



This eliminates the possibility of the reading dropping slightly after the thermometer is removed from the mouth. The dial and pointer give an indication which is very much easier to read than the position of the mercury column on an ordinary mercury-in-glass fever thermometer.

To check the claim of "Shockproof-Unbreakable," the *Cary* thermometer was dropped to the floor a half dozen times from a height of three feet and once from over seven feet. After each drop the *Cary* was checked for accuracy; it was found to be unaffected by the impacts it received. The feature of being relatively unaffected by shock is surely a desirable one for a clinical thermometer, which is pretty sure to be dropped or receive a sharp bump occasionally. However, any dial thermometer can get out of adjustment or develop inaccuracies without the user's realizing it. In this respect, the mercury-in-glass thermometer has one advantage, that when it is broken, its condition is obvious.

B. Intermediate

Cary Clinical Thermometer (Cary Thermometers, 2 Broadway, New York 4) \$8.75, including plastic pocket case. Very easy to use and rugged, but not as accurate as would be desired. Costs 6 or 7 times as much as a good mercury-in-glass thermometer. 3

Pocket adding machines

SO-CALLED MINIATURE CALCULATORS are items which are widely advertised in mail-order sections of certain magazines and some metropolitan newspapers. Generally, all of them are similar in having columns of numbers or dials which are moved, usually with a sharpened wooden rod, to permit adding or subtracting.

The number of columns or dials will vary from 4 to 8 or more and will limit the number of digits that can be read directly in the answer.

Some of these adding machines are automatic in that the dials are geared together so that when the total of any column becomes equal to or greater than ten, the one is carried over automatically to the next column to the left. Others have no such gearing, making it necessary for the operator to "carry one" to the next column by an extra operation. The devices which do not carry into the next column are of little value for any sort of computing.*

Small adding machines have their uses, perhaps, for people who are very slow or inaccurate at adding, but they are inherently slow, even for simple addition. According to one source, it will take 4 to 12 times as long to add with such a device as with a standard adder, or the "Comptometer" type of adding-and-multiplying machine.

* A number of these devices were discussed in an article in the October 1949 BULLETIN, along with an adder working on the same principle as the *Kes-Add*.



B. Intermediate

Kes-Add Pocket Adder (The Hart Vance Co., St. Louis 3) \$1.98. Adds and subtracts numbers of three digits to a total of not over four figures in the resulting sum. Has automatic carryover mechanism referred to in text. Not at all well suited for multiplying and dividing, since for these operations a considerable amount of mental computation is necessarily involved with this rudimentary kind of computer. (It is believed that in a good many instances problems of multiplication and division could be worked out faster in longhand.)

Legislation for auto safety

IN OUR April 1955 BULLETIN, in discussing the absurd lengths to which manufacturers are carrying a year-by-year increase of engine horsepower, and horsepower claims in their advertising, we remarked that manufacturers will find that, if they will not correct the situation, it will be corrected for them by governmental action. We pointed out that, if the industry showed brains and vision (which they have not shown up to this time on the matter of design for safety), the situation could be corrected at much less cost to all concerned than if it were allowed to continue, so that the government would be impelled to intervene.

We now learn that the expected intervention of governmental authority is coming closer, for a Congressional Committee has been set up to investigate on a federal scale the whole matter of automobile hazards, and there is a probability that Congress will enact, if they decide the Constitution permits this, legislation requiring the industry to do, under penalty, what it should have done just as a normal service to the many millions of car users, and as a way of keeping more of its customers alive and out of hospitals. At

present under consideration are questions of auto design affecting safety (bumpers, for example), effects of speed on injuries and deaths, highway design as it affects hazards in use of automobiles.

Not only is Congress greatly concerned, but state governors attending a recent national governors' conference at Atlantic City expressed the view that something must be done to stop the race for high power and high speed among car manufacturers. One governor accused auto makers of "plunging into a headlong horsepower Derby of death and destruction." The states may be forced to take action in defense of their citizens. Television advertising that encourages driving at high speeds was justly taken to task in the governors' discussion.

We may hope that federal and state officials will be able to arrive at findings and conclusions that will bring home to the public the extreme seriousness of the unnecessary hazards that characterize the present designs of automobiles and the simple means available for correction of some of the most serious of the design faults now in evidence.

Safe use of electric mixers

"I am one of the unfortunates who will always remember the 'bite' of my electric mixer. Exactly a year ago after making cookies for my son, I thoughtlessly replaced the beaters in the machine without disconnecting the cord from the electric outlet. As I screwed the beaters in place, I noticed a drop of water on them. I took a popular type of dish cloth (one of the mesh kind) and wiped the water off. In doing so, in some way the mesh cloth caught on the starter lever and the index fingertip of my left hand flew into the kitchen sink! You can imagine my horror as I saw my finger, nail neatly manicured, lying there!

"To describe briefly a terrible experience and shock, I spent three days in the local hospital and left immediately for our long-planned Florida vacation. I was instructed to stop enroute to confer with plastic surgeons for change of dressings and inspections. On reaching Ft. Lauderdale, I was not allowed to go on the beach for three weeks by my doctor there whom my good husband took me to see every other day. What a trip!

"A year later, I have a good nail but a shorter finger which pains me constantly in both joints. Since my costly accident, I have asked many friends how they use their mixers and to my horror I find that nine out of ten keep the mixers plugged into the outlet at all times. Any movement would start the thing, I know. . . . From now on, you can bet I never plug mine into the outlet till the beaters are in. I am very leery of this monster which nearly cost me my hand.

"I hope *everyone* will read your warning article. . . .

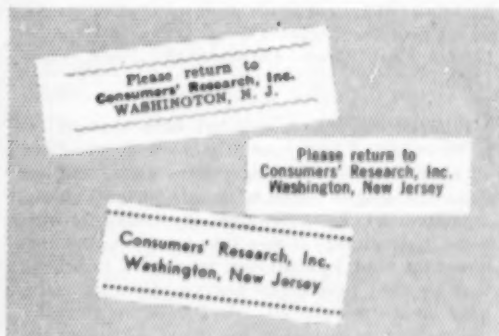
"P.S. The joker of this mess was that my insurance company refused to pay for an 'amputation' (which all doctors aver is the case involved) because only $\frac{3}{8}$ inch of bone was cut off. They paid me \$25 for, of all things, a 'fracture' but refused payment of \$750 for 'amputation' because, they said 'you must cut off at least a half inch.' I must?!?"—A letter from a reader of CONSUMERS' RESEARCH BULLETIN.

Modern electrical appliances represent a high development in the field of mechanical and electrical engineering. Yet there are a good many aspects in which most of them can be improved, particularly with respect to safety, as in this case, where a switch was so placed and formed that it could easily be turned on unintentionally.

Sometimes manufacturers think we go too far in warning consumers to be careful in the use of appliances (as we did in discussing the design of electric mixers). Some readers, too, may have thought our warnings on the hazards of appliances unnecessary, or that they reflected highly improbable occurrences. Hazards of the most serious nature *are* found in practice, and consumers will be better protected as they are made more aware of the problems. Today's homemaker and her young children can get into trouble in numerous ways that presented no problem 10 or 20 years ago, for modern homes contain a number of devices which must be handled with care and attention to detail. Machinery always involves risk of injury, and machinery in the home particularly so, where expert supervision is often lacking and children and inexperienced persons can get into serious trouble in wholly unexpected ways.

Gummed name and address labels

GUMMED NAME AND ADDRESS LABELS, convenient for re-address on stationery, packages, books, checks, etc., are frequently advertised in the shopping guide pages of magazines and the magazine sections of big city newspapers. Since having one's name imprinted on checks by a printing press is fairly expensive (around a cent per check), the use of these stickers affords an inexpensive means of "personalizing" checks. For checks that have a very limited area to which a label could be applied, the smallest size (*Handy Labels*) would be the choice. It is important that the label should be so placed that



it will not interfere with any of the printing on the check (for example, the Federal Reserve clearance or routing number), nor with the date, the amount, or the signature.

The companies listed below are known to supply stickers of satisfactory quality, with name and address printed according to the customer's directions. The labels supplied by International Industries and Tower Press were considerably lower in price, per hundred, than the ones available from Distinctive Match Co. The names and addresses on the white stickers in the group checked by CR were printed in black. The *Handy Labels* were printed very cleanly on rather glossy paper.

Handy Labels (International Industries, Box 509, Culver City, Calif.) \$1 for 1000 1-5/16 x 7/16 in. labels in pad form, with small plastic box for carrying in purse or pocket. The thickest paper and the largest type face of any in the group; the label itself is the smallest in size, hence specially suitable for use on checks.

Personality Tip-Ons (Available from Distinctive Match Co., 23 Fayette St., Boston 16) \$1 for 300 1-1/2 x 9/16 in. labels packed in handy dispenser boxes. Second thickest paper and the second largest type face in the group.

Labels from Tower Press, Inc., Box 591, Lynn, Mass. \$1 for 1000 1-3/4 x 9/16 in. labels in pad form, with plastic box; 50c for 300 labels, without plastic box. Thinnest paper and smallest type face in the group.

Those too-big engines

A COLLEGE PROFESSOR, well-qualified in engineering science, and long familiar with automotive engines and engine testing, has written:

In 1937 an eminent university professor of automotive engineering stated that automobiles of that day could, with a few changes, get 35 miles per gallon of gasoline, and he said at that time that with improvements that would probably be made within the next 10 or 15 years, 40 to 50 miles per gallon should be possible. Actually, we get about the same mileage from our cars as we did 20 or more years ago. Why is this? Don't the automobile manufacturers know how to improve fuel economy?

The answer is rather complex, of course. There are a few cars on the market today that demonstrate better than average fuel economy: *Volkswagen*, *Rambler*, and any of the lighter cars that use overdrive are examples. But none of these consistently get the predicted 40 to 50 miles per gallon.

The basic difficulty comes from using too powerful engines that, at normal driving speeds, operate at too low a fraction of their output capacity. It is worthy of note that our large trucks use engines of no greater horsepower than that available in our small passenger cars: Chevrolet 16 tons—195 hp., Dodge 14½ tons—171 hp., Ford 18 tons—190 hp., Studebaker 9 tons—156 hp.

It seems that the public has been overbold on performance. They apparently like to grind rubber off their tires when the light turns green, and are persuaded that in order to be safe on the highway each car has to be able to pass every other car with ease. Even though it may take less than 50 horsepower for most legal driving, we are led to believe that we need tremendous reserve power for many hazy or obscure reasons. And since we normally use these large engines at low power output for the

speeds at which we usually drive, we sacrifice a great deal of economy.

How many times in the life of a car does one use anywhere near all the maximum power? Most recent cars would have to be going about 90 miles per hour up a grade that required full throttle at that speed. Of course, it is a fact that horsepower ratings are largely fictions anyway. Of three cars tested on a dynamometer this spring, none developed as much as three fourths of the manufacturers' rated power at 75 miles per hour. But we still have more power than we need.

With the recent development of power plants, automatic transmissions and engineering materials, and with the knowledge of what is necessary for riding comfort, it is a shame that the automotive industry doesn't start producing sensible, utility vehicles that give truly economical transportation. The traveling public is entitled to them. But it will take an educational program to make the change.

In concluding his comment, our correspondent writes that manufacturers of certain farm equipment for a time resisted efforts of experts in that field to test farm machinery and publish findings on the dangers arising in use of such equipment. Now, after a considerable period, they have come around to the point of encouraging or even helping with training programs to teach safe operation. Automobiles are, of course, in a different category, but perhaps there is hope that automobile manufacturers, too, may come to the view that in the long run, sales of cars will be helped rather than hurt by changing the emphasis from extreme power and acceleration to factors which make for safety, designs in which the driver, the passengers, and persons on the road or sidewalk have a better chance for survival in the accidents and collisions that are bound to occur.

Aluminum hot-water tanks

—magnesium anodes with glass-lined tanks

SINCE our article on water heaters in the January 1956 BULLETIN went to press, additional information has come to hand regarding the aluminum water tanks which are now being offered by a number of manufacturers. As the January article pointed out, even slight traces of iron or copper in the water entering a tank will promote rapid corrosion of aluminum or an aluminum alloy. The effect of these traces of dissolved metal is much more pronounced with aluminum tanks and pipes than with steel or galvanized steel. On this account, it is thought that the use of aluminum hot-water tanks may prove to be impractical in certain areas of the country where the iron content of the water is high or where the water is of such character that it has been found by experience to corrode copper supply pipes even slightly and thus introduces traces of copper into the tank. Copper in water is often evidenced by a greenish or blue-green stain where water drips on the white porcelain-enameled surface of a lavatory, sink, or tub.

The use of aluminum tanks is too new to indicate how serious this problem may be, considering the country as a whole, but there has been poor performance of aluminum tea kettles in certain areas of the country, and it seems likely

that similar or worse difficulties may arise with aluminum hot-water tanks.

A further point to be noted is that the magnesium anodes in combination with the glassy or vitreous lining of hot-water tanks of the sort now becoming popular help greatly in providing longer life for heaters and tanks. This is because the areas of bare metal to be protected in the vitreous-enamel-lined tank are small. The anode is able to do an effective job against this decreased area of exposed metal as compared with the lesser degree of effectiveness it would afford in the ordinary galvanized tank, where the area to be protected from electrolytic action would be relatively, very large.

Recent studies indicate that on the whole it may be best not to employ the special "dielectric" unions discussed in the second paragraph of the January article, which had been recommended for use with copper piping connected to galvanized tanks (or vice versa). The reasons for questioning the desirability of using these special unions are complex, and the engineering experts are not in agreement; the problem will be discussed in a brief article in a subsequent BULLETIN.

Corrections and Emendations to Consumers' Research Monthly Bulletins

Snow-Melting
Systems
Page 27
Jan. '56 Bulletin

Additional pamphlets and reprints available free on the subject of snow-melting systems have been brought to our attention. These include the 31-page

pamphlet Steel Pipe Snow Melting and Ice Removal Systems from the American Iron and Steel Institute, 350 Fifth Ave., New York City; a technical bulletin from the Socony Mobil Oil Co., Inc., Socony Mobil Bldg., 150 E. 42 St., New York 17, entitled Controlling Ice and Snow with an Oil System; and several trade journal reprints, and a section of the 66-page booklet Radiant Heating with National Pipe available

from the National Tube Division, U. S. Steel Corp., Pittsburgh, Pa.

On the basis of these sources, the allowance of 100 Btu per hour from the boiler per square foot of area to be melted would be inadequate for the fluid temperature of about 160°F suggested in the BULLETIN. Details of design would, of course, depend upon weather conditions to be expected, but a somewhat greater heat allowance would likely be necessary, even for a lower fluid temperature (which normally would give somewhat higher efficiency). One expert in this field has suggested an allowance of 150 Btu per hour per square foot for residential and 200 Btu for

commercial applications. He suggests that the piping have concrete both above and below it, since piping placed on the sub-fill may be corroded by ground moisture. Because anti-freeze solutions are likely to be both poisonous and somewhat corrosive, some snow-melting systems use a special "heat transfer oil" (probably in the range of 50 cents to \$1 per gallon) instead. A melting system should not connect in any way to the water supply of the house or building; this independence of the piping eliminates any possibility of contamination of the water by the anti-freeze.

Anti-freeze *Studebaker Permanent Anti-Freeze* has been discontinued and replaced by *Studebaker-Packard Anti-Freeze*. The latter, from a new supplier, has a satisfactorily low water content and warrants an *A-Recommended* rating.

Picnic Jugs
Page 27, Col. 1
June '56 Bulletin

have appeared
page 26, col. 1.

Transistor
Hearing Aids
Pages 25, 26
May '56 Bulletin

Feather Flite Model A-32. Delete statement, "Aluminum liner adversely affected in corrosion test." This sentence should under *Feather Flite Model A-33*,

The manufacturer of the *Maico Transist-Ear* models V and W has informed CR that these aids carry a suggested list price of \$258, plus taxes where applicable, and that at this price the aid is complete with all accessories and a custom-made ear insert (not \$290 as the price was given in the BULLETIN). In the tabulation of data on page 25, the width of the *Transist-Ear V* should be changed to read "from 1 to 1.25" inches; the case is tapered in shape.

Brief Cumulative Index of Previous 1956 Consumers' Research Bulletins

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Indicates that a discussion of a product or products by brand name is included.

Ratings of Motion Pictures

THIS section aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines—some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

Boxoffice, Cue, Daily News (N. Y.), The Exhibitor, Films in Review, Harrison's Reports, Joint Estimates of Current Motion Pictures, Motion Picture Herald, National Legion of Decency, Newsweek, New York Herald Tribune, New York Times, The New Yorker, Parents' Magazine, Release of the D. A. R. Preview Committee, Reviews and Ratings by the Protestant Motion Picture Council, The Tablet, Time, Variety (weekly).

The figures preceding the title of the picture indicate the number of critics whose judgments of its entertainment values warrant a rating of A (recommended), B (intermediate), or C (not recommended).

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure
biog—biography
c—in color (Ansoo, Eastman Technicolor, Trucolor, Warner Color, etc.)
car—cartoon
com—comedy
cri—crime and capture of criminals
doc—documentary
dr—drama
fan—fantasy
hist—founded on historical incident
mel—melodrama
mus—musical
mys—mystery
nov—dramatization of a novel
rom—romance
sci—science fiction
soc—social problem drama
trav—travelogue
war—dealing with the lives of people in wartime
wes—western

A	B	C	
4	7	7	Abdullah's Harem (see Royal Bed, The)
—	2	2	Alexander the Great hist-dr-c AY
—	3	2	Alone in the Streets (Italian) dr A
—	3	2	Amazon Trader, The doc-dr A
2	5	1	Ambassador's Daughter, The com-c A
—	4	3	Angel Who Pawned Her Harp, The (British) fan A
—	6	9	Animal World, The doc-c AY
—	4	3	As Long As You are Near Me (German) dr A
1	4	13	Autumn Leaves dr A
—	—	3	Awara (Indian) nov A
1	7	6	Away All Boats war-dr-c AY
—	2	3	Back from Eternity mel A
—	6	4	Backlash wes-c A
—	2	4	Bad Seed, The dr A
1	6	3	Ballet of Romeo and Juliet, The (U.S.S.R.) doc-c AY
—	4	1	Bandido mel-c A
3	2	—	Battle of Gettysburg, The doc-c AY
—	—	3	Beast with 1,000,000 Eyes, The sci A
—	2	6	Behind the High Wall soc-mel A
6	11	1	Bhowani Junction mel-c A
—	6	5	Bigger Than Life mel A
—	9	9	Birds and the Bees, The com-c A
—	5	7	Black Sleep, The cri-mel A
—	5	6	Blackjack Ketchum, Desperado wes AY
—	1	2	Bobby Ware is Missing mys-mel AY
—	11	5	Bold and the Brave, The war-com A
—	4	1	Boss, The cri-mel A
1	3	—	Brave One, The dr-c AY

A	B	C	
—	3	3	Bullfight (Spanish) doc A
—	4	1	Burning Hills, The wes-c A
3	7	2	Bus Stop dr-c A
—	2	1	Canyon River wes-c AY
1	10	7	Catered Affair, The dr A
—	7	3	Comanche hist-dr-c AY
—	2	10	Congo Crossing mel-c A
1	5	11	Conqueror, The adv-c A
—	2	1	Crashing Las Vegas com A
—	3	9	Creature Walks Among Us, The sci A
—	3	5	Creeping Unknown, The sci A
—	1	4	Crime Against Joe cri-mel A
2	3	10	Crime in the Streets soc-mel A
—	7	3	Crowded Paradise soc-dr A
—	1	2	Cry in the Night, A mel A
—	5	—	Dakota Incident wes-c A
—	1	4	Dark River (Argentine) dr A
—	3	2	Davy Crockett and the River Pirates mel-c AY
—	4	6	Day of Fury, A wes-c A
1	8	7	D-Day, the Sixth of June war-dr-c A
—	2	4	Doctors, The (French) dr A
—	—	4	Dynamiters, The cri-mel A
—	5	6	Earth vs. the Flying Saucers sci AY
2	11	3	Eddy Duchin Story, The mus-biog-c AY
—	1	5	Edge of Hell dr A
—	3	6	Emergency Hospital mel A
2	9	5	Fastest Gun Alive, The wes AY
—	2	2	Fear (German) dr A
—	4	5	First Texan, The biog-c AY
—	3	—	Forbidden Cargo (British) mel AY
—	15	2	Forbidden Planet sci-c A
1	4	9	Foreign Intrigue mys-mel-c A
—	6	6	Francis in the Haunted House com AY
—	7	3	French Can Can (French) mus-com-c A
—	2	4	Fruits of Summer (French) dr A
—	9	6	Gaby war-dr-c A
—	5	7	Godzilla (Japanese) sci A
3	7	1	Goodbye, My Lady dr AY
—	1	4	Great Day in the Morning mel-c A
3	12	2	Great Locomotive Chase, The hist-dr-c AY
—	1	3	Gun Slinger, The wes-c A
3	11	5	Harder They Fall, The mel A
—	4	1	He Laughed Last com-c A
—	3	1	Hidden Guns wes-mel-c AY
—	5	6	High Society mus-com-c A
—	4	13	Hilda Crane dr-c A
—	2	1	Hold Back the Night war-dr AY
—	2	4	Hot Cars cri-mel A
2	6	1	House of Ricordi (Italian) mus-biog-c A
—	5	2	Huk mel-c AY
—	1	3	Indestructible Man, The cri-mel A
2	7	7	Invitation to the Dance mus-doc-c A
—	4	1	Island of Allah doc-c A
—	2	5	I've Lived Before dr A
—	—	3	Jaguar mel AY
—	—	4	Jedda (Australian) dr-c A
—	6	4	Johnny Concho wes A
3	9	5	Jubal wes-c A
—	4	4	Kettles in the Ozarks, The com AY
—	5	4	Kid for Two Farthings, A (British) dr-c A
—	8	3	Killing, The cri-mel A
10	5	—	King and I, The mus-dr-c AY
—	4	9	Kiss Before Dying, A cri-mel-c A

A	B	C		
1	4	5	La Strada (Italian)	dr A
—	1	2	Last of the Desperados	wes AYC
?	7	4	Last Ten Days, The (Austrian)	war-dr A
2	3	—	Last Wagon, The	wes-c AY
—	5	7	Leather Saint, The	dr AYC
?	3	1	Lisbon	mel-c A
?	7	6	Lovers and Lollipops	dr A
2	3	1	Lust for Life	biog-c A
2	7	2	Madame Butterfly (Italian)	mus-dr-c A
—	—	4	Mademoiselle—Age 39 (Greek)	com A
—	1	3	Magnificent Roughnecks, The	mel AYC
—	3	3	Make Me an Offer (British)	dr-c A
7	8	2	Man in the Gray Flannel Suit, The	dr-c A
4	10	4	Man Who Knew Too Much	mys-mel AYC
—	13	—	Massacre	mel-c A
—	7	5	Maverick Queen, The	wes-c AYC
—	1	3	Miami Expose	cri-mel A
9	5	2	Moby Dick	nov-c AYC
—	6	3	Mohawk	dr-c A
—	2	6	Murder on Approval (British)	mys-mel A
—	5	4	My Seven Little Sins (French)	com A
—	1	3	Naked Amazon	trav-c A
1	3	2	Naked Hills, The	mel-c AYC
—	4	6	Naked Night, The (Swedish)	dr A
—	1	4	Navy Wife	war-dr A
—	6	5	Nightmare	cri-mel A
—	3	5	1984	fan A
—	2	3	No Man's Woman	mys-mel A
6	7	—	On the Threshold of Space	sci-dr-c AYC
—	3	—	On the Twelfth Day	fan-c AYC
—	1	2	Outlaw Treasure	wes AYC
—	7	2	Outside the Law	mel AYC
—	2	2	Papa, Mamma, The Maid and I (French)	com A
1	6	5	Pardners	com-c AYC
2	10	5	Patterns	dr AY
1	11	—	Phantom Horse, The (Japanese)	dr-c AYC
—	5	—	Pillars of the Sky	mel-c A
—	—	10	Price of Fear, The	cri-mel A
—	3	2	Private's Progress (British)	war-com A
—	5	6	Proud and the Beautiful, The (French)	dr A
1	5	11	Proud and the Profane, The	war-dr A
2	8	1	Proud Ones, The	mel-c AYC
—	4	4	Queen of Babylon, The (Italian)	adv-c A
—	2	6	Quincannon, Frontier Scout	war-mel-c AYC
—	1	2	Race for Life, A (British)	mel A
2	5	4	Rack, The	war-dr A
—	2	5	Raw Edge	wes-c A
—	8	4	Rawhide Years, The	mel-c A
—	3	2	Rebel in Town	wes-mel A
—	8	1	Red Sundown	wes-c A
—	6	5	Return of Don Camillo, The	dr A
1	3	11	Revolt of Mamie Stover, The	soc-mel-c A
7	6	3	Richard III (British)	dr-c AY
2	7	3	Riffi (French)	cri-mel A
—	5	4	Rock Around the Clock	mus-com A
—	1	9	Rosanna (Mexican)	dr A
—	4	5	Royal Bed, The	dr-c A
1	4	1	Run for the Sun	mel-c A
—	8	8	Safari	mel-c A
—	7	4	Santalo	war-mel-c A
—	5	3	Satellite in the Sky (British)	sci-c AYC
—	5	5	Scarlet Hour	cri-mel A
—	7	1	Screaming Eagles	war-mel AYC
6	7	4	Searchers, The	wes-c A
—	1	8	Secret of Treasure Mountain	wes A
4	4	—	Secrets of the Reef	doc-c AYC
3	7	6	Serenade	mus-dr-c AY
—	4	1	Seven Men from Now	wes-c AYC
4	5	2	Seven Wonders of the World	trav-c AYC
—	3	2	Shadow of Fear (British)	mys-mel A
—	3	2	Ship that Died of Shame, The (British)	mel AYC
2	2	2	Showdown at Abilene	wes-c A

The Consumers' Observation Post

(Continued from page 4)

proof. Consumers who have been taken in by high-pressure advertising for quick and easy methods of removing excess poundage may welcome an opportunity to report their experiences to the National Better Business Bureau, Chrysler Building, New York 17.

* * *

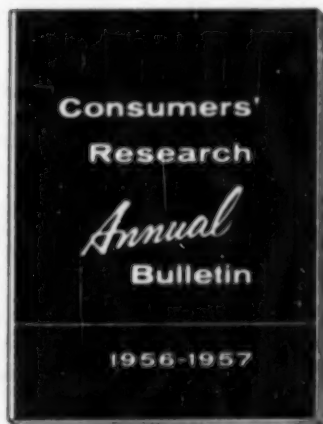
PORTABLE RADIO SETS are increasing in popularity, both the tube and transistor styles. It is predicted that, if the present trend continues, practically all portable radio sets and a large percentage of table-model radios will also be transistorized during the coming year. For those who are interested in high-fidelity reproduction, it is well to bear in mind that the sound quality of sets using transistors is not so good as sound from sets using tubes.

* * *

COSMETICS ARE MORE IMPORTANT THAN FOOD to some women. That's the conclusion to be drawn from a release from the Toilet Goods Association. At any rate, the costliest beauty preparations known to the cosmetic industry have been introduced in the past few years, designed to improve the quality of the skin in addition to acting as a cover up of skin imperfections. As an executive of the T.G.A. pointed out, women want more than a paint job. Now they want a repair job at the same time. But before rushing out and buying some miracle-working potion at \$15 an ounce, keep in mind that toilet lanolin has for decades been an essential ingredient of a good many creams and lotions for which wonder-working claims have been made. It can be inexpensively bought by the tube from the local drugstore.

* * *

BEEF IS THE FAVORITE MEAT of 85 percent of families with an income of \$6000 a year and higher, according to a preference study published by the University of Wyoming. The high and medium income groups gave steak first preference over roasts; the low income group preferred roast, particularly pot roast. In making their purchases, few people in the survey had a working understanding of government grades. When asked to indicate their preference for particular cuts of U.S. Choice, U.S. Good, and U.S. Commercial, they were inclined to put U.S. Good at the top because they thought it had less fat or was leaner. About half of those queried said that they depended on their butcher to give them the quality they wanted.



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BETTER HURRY!



DRIVERS PRONE TO AUTOMOBILE ACCIDENTS also tend to be persons who have trouble with paying their debts. Anyway, that is what a Harvard researcher found out in a study of truck drivers, which revealed that 34 percent of the accident repeaters were also in trouble with credit bureaus. What will the survey-takers come up with next?

* * *

THAT NEW ANTIBIOTIC which is now applied to poultry to keep it fresh longer is supposed to disappear after the bird is cooked. According to a recent news item, however, the Food and Drug Administration has started a quiet investigation to see whether any of the chlortetracycline (Acronize) now used as a poultry preservative is turning up in turkey or chicken when it appears on the dinner table. Consumers who have an allergy to antibiotics will do well to look for labels (sometimes hidden under the wing) and avoid purchasing such Acronized poultry—just to be safe and sure.

* * *

BUYING RECORDS BY MAIL is something of a gamble. As discriminating music lovers know, even records by the top companies in the field purchased in "factory sealed" envelopes have been less than perfect. With mail-order purchases, if a record is unsatisfactory, there is the bother of wrapping, mailing the record, writing a letter, and obtaining a refund. Recently a federal complaint was lodged against Music Treasures of the World which advertised classical records at very attractive rates. The action was due to protests that, in spite of the company's promises, consumers who signed up for membership in the club plan were unable to cancel their membership upon written notification and were mailed additional records that they did not wish to purchase and for which they were pressingly billed.

* * *

ROADS EXPENSIVELY BUILT WITH EVERY KNOWN SAFETY DEVICE seem a waste of taxpayers' money when the new model cars advertise greater speed and more power. The governor of an Eastern state recently threatened that if the race in the automobile field continues, the states may be obliged to do something to curtail auto speed and engine horsepower by law.

* * *

IF YOU ARE PICKING MATERIALS for a new home, you need to know something about lumber, which is graded according to quality and strength, and classified as softwood or hardwood. An excellent summary of the outstanding points to keep in mind, including quality of lumber, grain of wood, defects, size, types and grades of lumber, is attractively set forth in a little leaflet entitled Selecting Lumber, Circular Series D7.0, available at 10 cents from the Small Homes Council, Mumford House, University of Illinois, Urbana, Ill.

Consumers' Research, Inc.

WASHINGTON, NEW JERSEY

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CR-10-56

Phonograph Records

BY WALTER F. GRUENINGER

Please Note: The first symbol applies to quality of interpretation, the second to fidelity of recording.

Beethoven: *Piano Concerto No. 5* ("Emperor"). Casadesus with the Philharmonic-Symphony of N.Y. under Mitropoulos. Columbia ML 5100. \$3.98. One of the greatest works in this genre, poetically performed, and marvelously recorded in Paris. Of the 17 recordings in Schwann's catalog, I would list in the top bracket this one, Decca DL 9741 with Kempff, and London LL 879 with Backhaus. AA AA

Debussy: *Images, Books 1, 2 and Estampes and Children's Corner Suite*. Hans Henkemans (piano). Epic LC 3245. \$3.98. Some of Debussy's best piano compositions are heard here. This performer is new to me, but he certainly knows the subtle style and the color that produce the distinctive Debussy effect. Fine recording, with exceptional volume contrast. AA AA

Debussy: *Nocturnes and Prelude to the Afternoon of a Faun & Ravel: Daphnis and Chloé Suite No. 2*. Philadelphia Orchestra under Ormandy. Columbia ML 5112. \$3.98. Though a little of the exotic color is lacking, it's not very much, and the sound is luscious. Tantalizing, impressionist music well worth repeated hearing. AA AA

Glanville-Hicks: *Etruscan Concerto*. Bussotti (piano) with the MGM Chamber Orchestra under Surinach & Holmboe: *Concerto No. 11 for Trumpet, Two Horns and Strings*. Same Group. MGM E 3357. \$3.98. New music. Miss Hicks' work possesses many charming passages whereas Holmboe's more rugged work doesn't reveal its beauty so easily. Both concerti are superbly played and, fortunately, recorded with more resonance than previous MGM releases. For adventurers! AA A

Rubinstein Plays Liszt (piano). RCA Victor LM 1905. \$3.98. Seven numbers including the "Liebestraum," "Mephisto Waltz," two "Hungarian Rhapsodies," etc. What magnificent playing! AA A

Liszt: *Six Hungarian Rhapsodies*. Philharmonic-Symphony Orchestra of London under Scherchen. Westminster XWN 18190. \$3.98. These are the rhapsodies that Liszt orchestrated from his piano pieces. The over-all impression is less flamboyant than usual, though there is an abundance of color and festivity. AA AA

Prokofiev: *Li. Kijé Suite & Kodály: Hary Janos Suite*. Philharmonic-Symphony Orchestra of N.Y. under Mitropoulos. Columbia ML 5101. \$3.98. Colorful modern works that please nearly all listeners. Biting, superb performance and recording. AA AA

Viennese Delights. Vienna Symphony Orchestra under Salmhofer and Strauss. Epic LC 3246. \$3.98. Fifteen pieces by Johann Strauss including marches, polkas, waltzes, etc. A A

Bjoerling Sings at Carnegie Hall (tenor). RCA Victor LM 2003. \$3.98. Recorded at the September 24, 1955, concert with audience applause between the numbers. Side one: Lieder by Beethoven, Schubert, Strauss, Brahms. Side two: Opera Arias by Mozart, Giordano, Puccini, etc., plus songs by Tosti and Foster. The clear, ringing tones of Bjoerling and the first-rate musicianship are present, but some numbers are sung too fast. Bjoerling could do better, I think, if this were a studio recording session subject to another try. AA AA

Soundproof. Ferrante and Teicher (duo-pianists). Westminster WP 6014. \$3.98. Twelve pieces ranging from "What is This Thing Called Love" and "Baia" to "Green-sleeves" and "Dark Eyes." Unusual electronic effects secured by utilizing two "gimmicked" grand pianos and multi-channel five-track stereophonic recording, etc. For hi-fi fans seeking unusual sounds. AA AA

It's So Peaceful in the Country. Miller (English Horn and Oboe) with Percy Faith's Orchestra. Columbia CL 779. \$3.98. Slow numbers by Alec Wilder and Jimmy Van Heusen. Modest orchestra arrangements in good taste. The recording seems "souped up," emphasizing the high end. Somehow the true, reedy character of the solo instruments is missing. AA A

Two Piano Concerti. Rudolph Ganz and Parthenia Vogelback. Tiffany T 2000. \$4.98. (332 S. Michigan Ave., Chicago.) Elegant, stylish playing and commendable recording of works by six composers. Included are Saint Saëns' "Scherzo," Schumann's "Andante & Variations," Benjamin's "Jamaican Rumba," etc. AA AA

Truman Welch Plays the Theater Pipe Organ. Broadcast BC 616. \$4.95. (Record Broadcast Corp., San Marcos, Calif.) "Washington Post March," "El Choccolo," "Tenderly," "Blue is the Night," and eight similar numbers such as you may hear during intermission in a large motion picture theater. Played on the Paramount Iceland Amphitheater organ in Paramount, Calif. Brilliant sound, expert playing. AA AA

Decca has issued its Third Archive Release. These are Deutsche Grammophon Gesellschaft pressings of music, composed from 700 to 1700, of particular interest to music teachers, students, and serious listeners. In May, I discussed the Second Release devoted to Bach organ compositions played by Walcha. There's treasure of a more varied nature in the Third Release. The 14 records present music by many composers performed by musicians who, with one exception, are unknown to me. Fortunate is the one who can buy all of these disks (\$5.95 each). Short of that, you may wish to consider these which I particularly like. Performance and fidelity range from recommended to highly recommended. The list: *The Office for the Dead*, Gregorian Chant sung by the Choir of the Monks of the Benedictine Abbey on Archive ARC 3031; *De Machaut's La Messe de Notre Dame* and 10 Secular Works performed by Pro Musica Antiqua on ARC 3032; 12 Balletti by Gastoldi and 7 Chansons by Jannequin performed by Pro Musica Antiqua on ARC 3034; 9 Arias by Handel sung by Margot Guillaume on ARC 3042; 4 Chamber works by Telemann played by various artists on ARC 3043; Monteverdi's *L'Orfeo* sung by Krebs, Mack-Cosack, etc., under Wenzinger on ARC 3035/6.

Jumping to the other end of the scale, Columbia has released 7 disks in its Modern American Music series at \$3.98 each. With one exception, all are well recorded. All are well performed. How many of these pieces will be played 300 years from now we will never know. Meanwhile, teachers, students, and serious listeners are invited to become familiar with some of the chamber works and serious songs of our times: There's a disk of 6 Schönberg pieces, Columbia ML 5099; 7 Stravinsky pieces on Columbia ML 5107; Sessions and McPhee on 5105; Elliott Carter's String Quartet on ML 5104; Copland and Weisgall vocal music appears on ML 5106. Getting down to orchestral music, you will find Roy Harris' *Symphony No. 7* played by the Philadelphia Orchestra under Ormandy and his *Symphony 1933*, played by the Boston Symphony under Koussevitzky (poor fidelity) on ML 5095; Persichetti's *Symphony No. 4* and Gershwin's *Four Squares of Philadelphia*, played by the Philadelphia Orchestra on ML 5108.

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